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ABSTRACT

This manual presents guidelines for establishing, modifying, and terminating occupational programs at any educational level. It is the result of a comprehensive study of the current practices of all high schools, Regional Occupational Centers, and college districts in California, and an analysis of information obtained from State Boards of Education throughout the country. The manual presents a basic flow chart, as well as explicit guidelines and procedures for each step in the process, beginning with assessing program possibilities, and continuing through selecting the program coordinator; determining program goals and objectives; ascertaining required skills, knowledge, and attitudes; selecting teaching methods; identifying personnel needs; determining administrative relationships; making preliminary assessments of required resources; identifying evaluation methods; analyzing employment demand and potential labor supply data; conducting employer surveys; determining school, community, and student interests and reactions; determining curriculum needs; projecting enrollments; determining budget needs and funding sources; and implementing and evaluating the program. Regional Occupational Program guidelines for preparing and submitting applications for course approval are appended. (DC)

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Guidelines for Occupational Program Planning

a handbook

July, 1977

California Community Colleges
Chancellors Office

California State Department
of Education

Los Angeles Community
College District

California High Schools and
ROC/ROP Districts

CALIFORNIA

GUIDELINES FOR ESTABLISHING

MODIFYING AND TERMINATING OCCUPATIONAL PROGRAMS

HANDBOOK

VOCATIONAL EDUCATION, PART C

Project #19-64741-C-6-040

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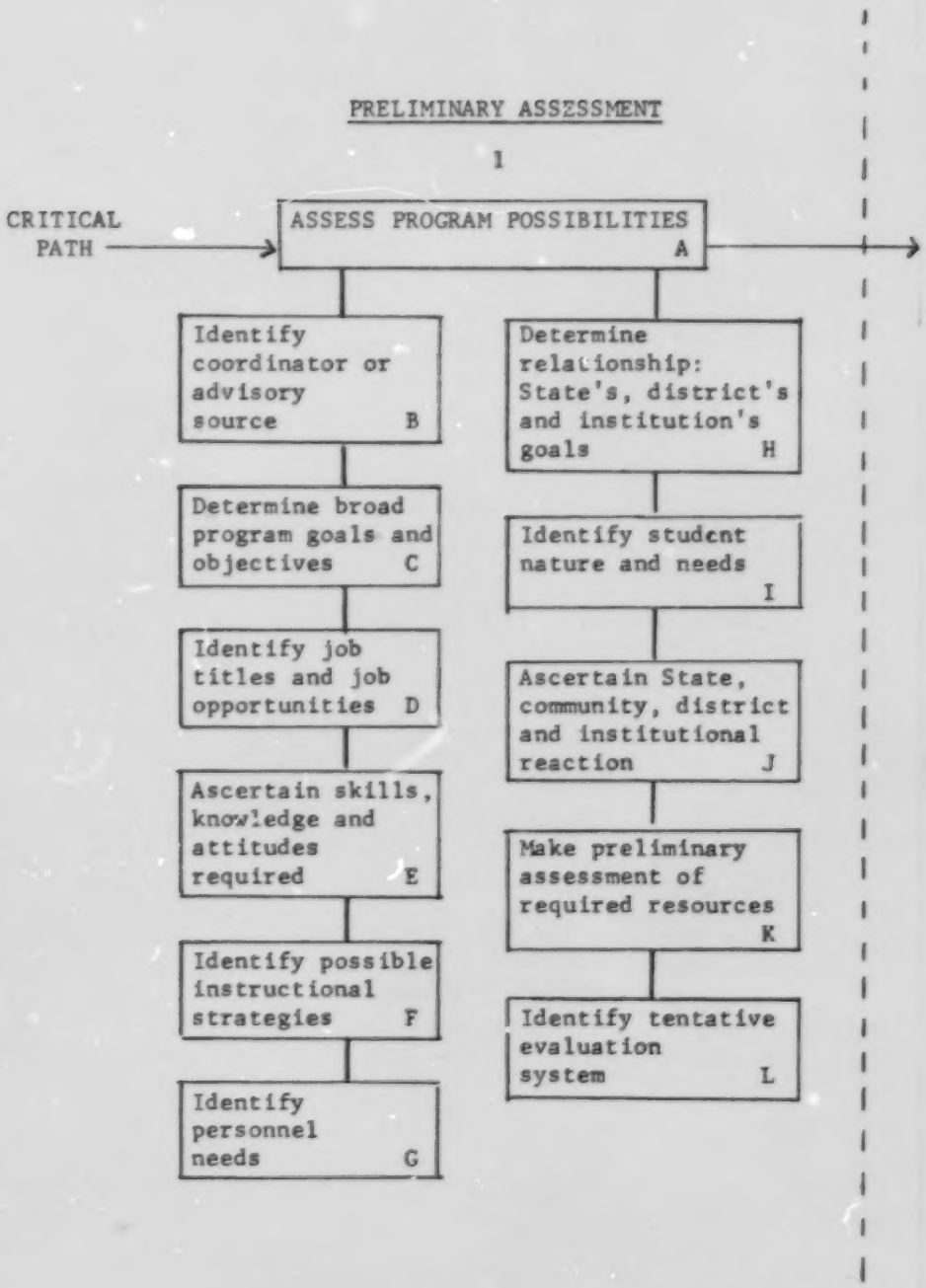
July 1977

OCCUPATIONAL GUIDELINES CHART:

PROGRAM INITIATION, MODIFICATION, TERMINATION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Identify job titles and job opportunities D
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Identify possible instructional strategies F
Identify personnel needs G
Determine relationship: State's, district's and institution's goals H
Identify student nature and needs I
Ascertain State, community, district and institutional reaction J
Make preliminary assessment of required resources K
Identify tentative evaluation system L

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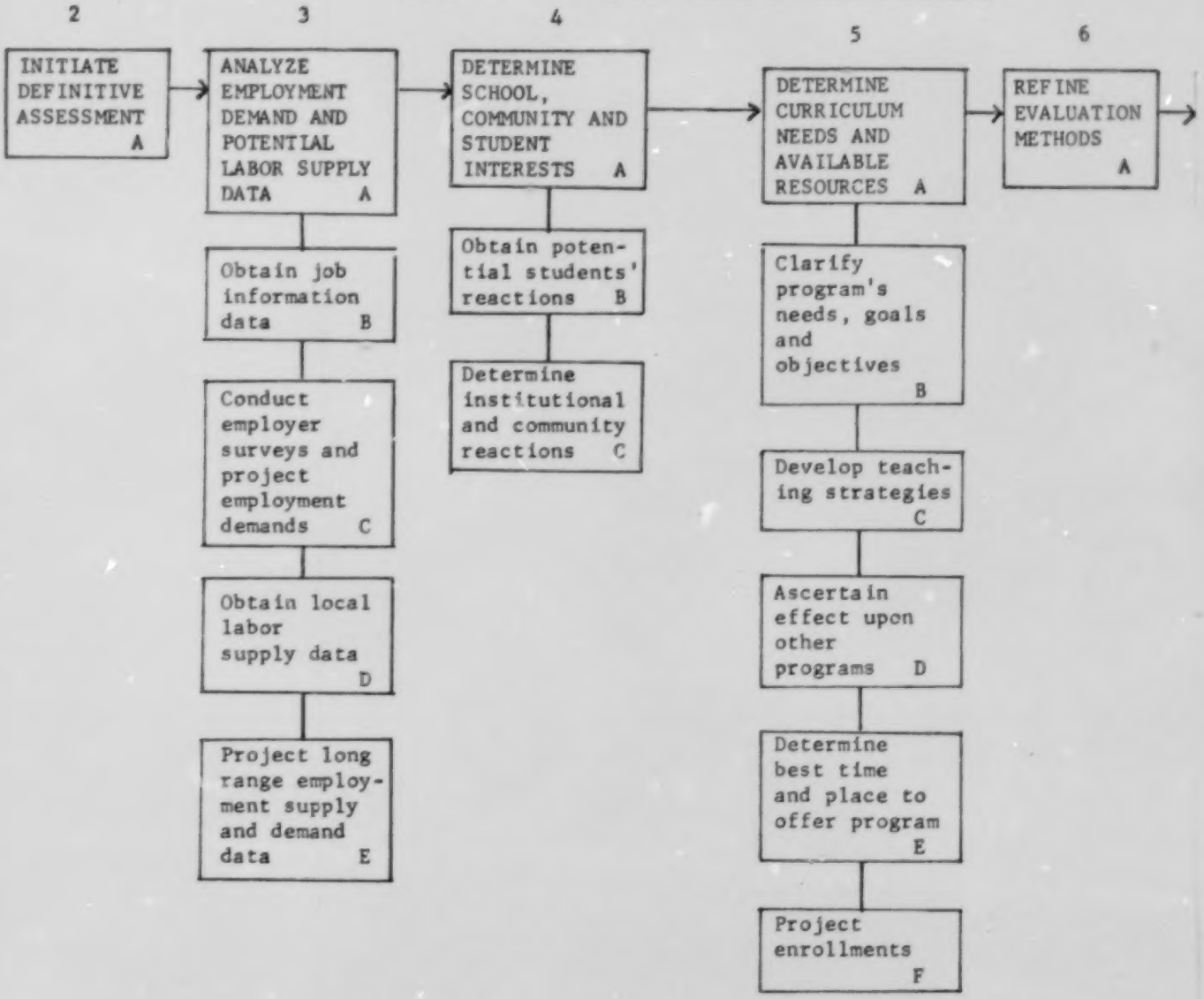
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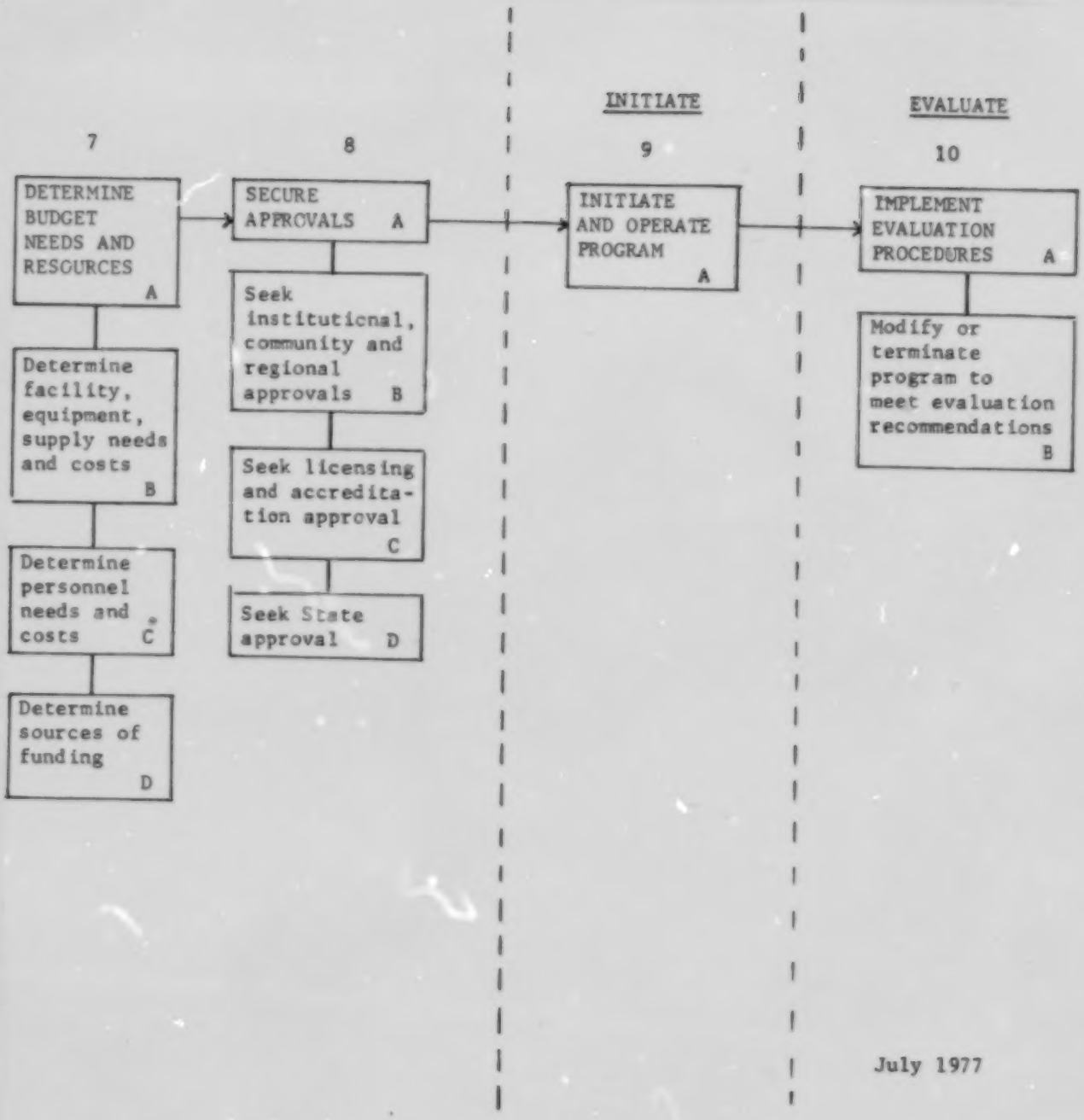
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July 1977

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As with most projects of this nature, this handbook was produced with the cooperation of a great number of individuals. The project was nurtured and supported by the consortium; a group whose names appear at the conclusion of these acknowlegments. The consortium members supplied experience, advice and enthusiasm from our first meeting in August of 1976 until the final drafts went to print.

I also wish to express my appreciation to the State administrators, Mr. William J. Callahan, Consultant, Research and Program Development, State Department of Education and Dr. William Morris, Evaluation Specialist, Chancellor's Office, California Community Colleges. Dr. Morris was involved with the project from its initiation in 1975 and served as its mentor through the numerous problems that such projects inevitably have.

My thanks to Dr. Arthur Cherdack and Dr. William Allen, Directors in the Los Angeles Community College District for assisting with the local project problems.

I wish to express my appreciation also to my wife, Hope Holcomb, who served as an unpaid adviser and secretary throughout the project's history. I was fortunate also, to have the services of Mrs. Motoko Saneto to assist with consortium meetings, typing and budget planning; she did an excellent job.

Robert E. Holcomb
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INTRODUCTION

This handbook is the result of a project directed under a grant from the State of California under Part C of the Vocational Education Act of 1968 (PL-90-576). The Los Angeles Community College District served as the supervisorial and fiscal manager of the project in consultation with the Chancellor's Office, California Community Colleges and the State Department of Education.

This project, to produce "Guidelines for Establishing, Modifying and Terminating Occupational Programs", was directed to obtain current materials relevant to occupational program development, to provide broad guidelines, and to pilot test these guidelines and distribute them statewide. A task force approach was utilized which included a consortium of representatives from community colleges, high schools and ROC/ROPs headed by a project director. Although originally planned to extend for sixteen months, the project's time frame was reduced to ten months -- from September 1, of 1976 to July 1, of 1977.

The concept of developing a project of this nature was a dual one: to provide program planning so that educators would be more accountable for their work, and to begin to consider methods for providing this accountability. Both the Chancellor's Office of the California Community Colleges and the Los Angeles Community College District recognized this needs. Accordingly, in the fall of 1975, Dr. William Allen, Dr. Arthur Cherdack, Dr. Louis Hilleary, and Dr. John McCuen of the Los Angeles Community College District met to draft a proposal for funding a project that would answer these needs. The draft of this proposal was submitted to the California Research Advisory Committee who reviewed and approved it. Dr. William Morris, Evaluation Specialist with the state chancellor's office, also reviewed and approved the project.

In the spring of 1976, the proposal was approved for funding under Part C of the Vocational Education Act of 1968 (PL-90-576). At this time, too, the project was expanded to include high schools and ROC/ROPs.

In the summer of 1976, a statewide committee was established to select the project coordinator. After interviews, Robert Holcomb, a former high school and college teacher and administrator, was chosen to serve as project director as of September 1.

A consortim of nineteen members was selected by the Community College Chancellor's Office and the State Department of Education. Representatives of all segments of secondary education were included; a balance between large and small districts was established.

In the first meetings of the group, the consortium members outlined their concepts of what they felt the state and the various institutions needed. In these meetings they urged that no lengthy questinnaire be sent; that a long-term research process was neither possible nor practical; that the guidelines be drawn from the best patterns available throughout the state; and that the consortium provide a basic flow chart -- simple yet flexible -- to assist occupational administrators in making wise decisions when contemplating initiating, modifying or terminating occupational programs.

Some anxiety was expressed at several of the meetings that these guidelines not become state mandated regulations which would bind all segments, add more paperwork to already overworked staffs, and be so rigid that much of the autonomy now found in California educational institutions would be curtailed. Other members also stated that with the rapid turn-over among administrators -- particularly in the occupational area -- that the guidelines be written simply enough that they could be utilized by administrators who were not too experienced in this complex area, and also be written to accommodate both small rural schools and large urban institutions.

The decision to request information from California schools was followed by a mass mailing to all high school, ROC/ROP, and college districts in the state asking for copies of their current practices in occupational program planning as well as modification and termination. Later in the year, similar requests were sent to State Boards of Education throughout the nation.

The number of respondents was extremely high. Almost all of the districts in California as well as forty-two States responded. Many districts and States wrote that they lacked any written policies but that they would contribute whatever information was requested by the project.

The information obtained from these mailed inquiries serves as the core of this manual. The consortium assisted in defining the major directions that the manual should follow: determine critical decision points in program planning; provide a simple easy-to-follow flow chart; emphasize successful experience based models; and enunciate guidelines in a handbook for occupation program planning.

Many varieties of flow charts were submitted to the Project. Excellent models were sent from county ROPs: Sacramento, Santa Barbara, San Bernardino, Los Angeles County and City, San Diego, Kern among others; also flow charts sent from colleges included those from Los Rios, San Jose, Yuba, and College of the Desert; High Schools sending flow charts illustrating program initiation were Glendale Unified, Mountain View, and Los Altos Union High School District.

Administrators utilizing this handbook should find it most advantageous to review the occupational guidelines' chart prior to reading the chapters since there are numerous interrelationships among the various major and sub-items on the chart.

The consensus of opinion of the consortium members was that an effort to

plan a new occupational program was divided into two phases: an initial broad overview of a proposal to determine whether further study is needed -- identified in the chart as the "Preliminary Assessment" -- and a second much more detailed analysis -- shown on the chart as the "Definitive Assessment."

Although chronological relationships exist among the various critical path items (1 - 10) with the sub-items (e.g. 1A - 1L), the chart is not planned to "fix" the relationship among these items; the program coordinator may wish to move quickly through sub-items in the preliminary assessment phase or put major emphasis upon one or two accoring to the institution's needs. The interrelationships among the various items become more apparent as the administrator moves further into the planning (e.g. the relationship between teaching strategies and budget costs).

The consortium members also urged that the chart not be an involved one using arrows and complicated sub-systems. The chart included in this handbook illustrates that caveat; the institution obviously will make its decision to drop or pursue a program based upon a multitude of factors. The handbook and chart's primary functions are to assist the administrator in identifying what factors to consider in decision making and to illustrate examples of current practices that have proven successful.

Each chapter heading of this handbook is the same as one of the items of the chart. For each item, a guideline is presented; and a "procedures section" follows briefly outlining practices that have proven successful in various parts of the State. A "questions" section is included in most chapters to assist the program planner in checking his or her policies and/or procedures.

Although the handbook may have broader utilization than within the state

of California, it has been written with that state's rules and regulations in mind. Most, if not all, of the state applications forms for new program approval have been considered in the writing of the guidelines.

Some anticipated goals were not achieved in this project. This handbook deals primarily with program initiation, with some emphasis upon modification and only a limited incorporation of material on program termination. As stated previously, written information on these latter items is quite limited and the time factor did not permit a more intensive study of these complicated areas.

Attempting to put together a single handbook covering three somewhat different aspects of secondary education proved difficult because of the nature of each segment's policies and procedures. Because of the background of the project coordinator, the emphasis appears to be directed more toward the community college than toward the high schools or ROC/ROPs.

Throughout this text, the term "program coordinator" is used to identify the administrator who is establishing the new program. This "coordinator" could be someone at a high school, an administrator from a ROC/ROP institution, or a college dean. Reference, too, is made to the institution's research director. Although some colleges do have such a person designated, in some institutions the "research director", budget director, and program coordinator are one and the same person. Although the word "program" is used throughout the handbook and is more applicable to community colleges than high schools or ROC/ROPs, much of the material related to programs could also be used in reference to occupational courses.

It is anticipated that these guidelines and the explanatory material included in this manual will be sent to all secondary districts in the State. This mailing will be followed by statewide workshops in which oppor-

tunities for additional information and corrections can be made. Hopefully, a revised manual incorporating the additional information provided by the occupational administrators throughout the state will be available in 1978.

ASSESS PROGRAM POSSIBILITIES

1A

Guideline: Prior to making a definitive assessment of a proposed occupational program, a preliminary assessment should be undertaken to determine whether the proposal is feasible.

Procedures: The preliminary assessment stage of program determination is recommended as a way of making a broad but rather brief overview of the emerging proposal. During this phase, an individual or committee is normally designated to direct the study of the proposal with particular emphasis upon the preliminary assessment aspects. These include determining proposal goals, job availabilities, anticipated student learning, teaching strategies, budgetary needs, and student needs, and identifying a tentative system of evaluation. At the completion of this overview, a decision will be made as to whether or not the more involved definitive assessment should be initiated.

Almost all institutions that responded to this Project's request for written materials identifying instituional guidelines included information as to how proposals were received, reviewed, and evaluated. Many schools sent charts illustrating the manner in which proposals were accepted or rejected and how those accepted moved from echelon to echelon until ultimately they were approved by the State (36).

Respondents to the project's questionnaire identified the various sources contributing to the initiation of new occupational programs. The origin of new programs comes primarily from the various institutions' faculties, but numerous other sources were identified: advisory committees, industry, private and public agencies, students, counselors, placement officers, and the community.

Many institutions encourage the development of new programs (16). Faculties are urged to attend and report ideas from conferences; to be alert to information derived from program evaluations, job market data, and advisory committee reports; to obtain information from periodicals (e.g. "Work Life") and from county, state and federal employment manpower studies; and to seek information identifying new fields of business or technology. Administrators report that a "climate for change" has to be established within the institutions if new programs are to be initiated. Faculty, staff, and community must be encouraged to provide ideas for new proposals.

The materials sent identified numerous common factors in the manner in which proposals were received. Most responding institutions identified a written proposal request form that program "authors" were asked to complete. This initial form usually identified these common elements: purpose of the proposal, a concise statement that a job need exists, appropriateness of the proposal to the institution, sources of information, student needs (entry level job, advanced training, or upgrading of existing employment skills), estimated time for program completion, awareness of similar programs in the area (5), and a tentative title.

Some high school districts present "experimental courses" during a trial year. Those deemed satisfactory are placed in the normal curriculum of the District (33). Some occupational leaders urge that a similar pattern be adopted for other segments of education where "pilot courses" would be offered for a year or two before committing an institution to a full program that may not be successful. During the early preliminary assessment stage, administrators seek a "fit", and try to determine what job opportunities are open, what program title to use, what courses may be involved, and what the ultimate format of the program is to be.

One problem occurs here that will continue through the assessment stages: how much information regarding the proposal should be disseminated? The coordinator who keeps too much to himself will be criticized for not permitting community and faculty to participate. If too much of a program is promised, a disappointed staff and community will be critical of the coordinator. Providing information without promises may be the safer "middle way."

Program initiators also must deal with two time factors: one dealing with the estimated time for completing the proposal planning; the other providing a time frame for the program itself. Some districts, particularly in the high school areas, have deadline dates for the submission of new curricula (often late Fall) with implementation of the program to begin the following year (10).

A few districts request that those wishing to establish new programs establish time lines for completing various stages of their assessments (e.g. research) along with a date for submitting the final proposal.

One state, New Jersey, sends community college curriculum proposals to all colleges one year in advance of implementation to ensure that each college has an opportunity to review proposed programs (30).

Coordinators of occupational proposals may want to see a model ROP proposal that may well incorporate many of the items requested by all districts when proposals are submitted. A copy of the Santa Barbara ROP program guidelines is incorporated in this Manual's Appendix, item "A".

Apart from the items already idenfified in this section -- flow charts of various institutions, the nature of institutional approval forms, pilot courses, program information dissemination and the several time factors involved in program development -- there are numerous other preliminary assessment

factors that should be reviewed by the initiator of a program prior to moving into the definitive assessment stage. These items, identified on the Guideline Chart as items 1B though 1L, need not follow in a flow chart pattern but may be utilized according to the needs of the program coordinator.

Questions:

1. Is assistance provided for those seeking to provide new programs? Does the institution have forms to assist individuals who wish to propose new occupational programs?
2. Does the institution provide encouragement for new proposals, e.g. release time, research assistance, and so on?
3. Does the institution have a formalized system for "moving" proposals through the various committees to the District and to the State for approval?
4. Are program initiators encouraged to obtain wide participation in their projects?
5. Are there opportunities for faculty and community feedback?
6. Are times specified for proposal and program completing?

IDENTIFY COORDINATOR OR ADVISORY SOURCE

TB

Guideline: Prior to initiating the study and research necessary for a preliminary assessment, some individual or committee should be identified to carry the proposal until a decision is made to implement or drop it.

Procedures: Many of the respondents to this Project's questionnaire indicated that one early decision usually made following a program proposal was the identification of an individual to coordinate the proposal until it was either implemented or discarded.

Some districts provide additional pay or release time for instructors who are involved in the planning and implementation of a new program. Others identify the instructor, counselor, or administrator who is to "bird dog" the proposal without additional compensation. Often new projects are initiated by department instructors who are interested in developing the program because of their interest in teaching in the project.

Once a decision is made as to who the coordinator is to be, a specific list of functions should be designated. Included in such lists are responsibilities of the project administrator, research coordinator, and director of communication and information relating to the project. The designated coordinator is often asked to determine the time necessary to complete the proposal, to prepare the formal proposal, and to carry it through the various committees and administrators necessary for its implementation.

Often closely identified with the selection of a coordinator, is the determination to utilize an advisory committee to assist as a resource element in project planning (31). Although the nature of advisory committees varies widely in the state, generally they are of two types if selected from individuals who are not employed by the school district. The least common is a general

advisory committee formed to assist an institution with broad questions relating to occupational education (e.g. promising new occupations, general job market information, recommendations relating to VEA expenditures.) Membership in these committees includes faculty, classified employers, local employers, employment agencies, and representatives from various special groups.

More ofter utilized are the various technical vocational advisory committees established to assist a single, or a limited few, occupational area(s). Duties of such committees are generally limited to advisory functions but their advice is sought on a large spectrum: the need or desirability of a particular educational program or course, performance standards, student placement, student selection criteria, new technical procedures and facilities.

Most institutions recommend that minutes of advisory meetings be carefully written and that the names of each member's business firm be kept along with a description of major topics discussed and recommendations made. Dissenting viewpoints also should be noted.

Questions:

1. Does the institution identify one individual to serve as the administrator or coordinator for each proposed occupational program?
2. Does the institution provide incentives for individuals who propose new occupational programs (e.g. release time or additional income)?
3. Does the institution provide a checklist identifying the functions and procedures for the program coordinator to follow?
4. Does the institution have a procedure for selecting advisory committees?
5. Are advisory committee members fully informed as to what their contributions can be and what their limitations are?

DETERMINE BROAD PROGRAM GOALS AND OBJECTIVES

1C

Guideline: Even though it is anticipated that numerous changes will be made in a proposed program as it is being developed, tentative goals and ojbectives should be established during the assessment phase.

Procedures: The State of California Education Code identifies a goal as a statement of broad direction or interest, general and timeless, not concerned with a particular achievement in a specified time. An objective is defined as an accomplishment that can be verified in a given time and advances the system toward a corresponding goal.

The coordinator should begin to identify both goals and objectives as soon as the preliminary assessment begins. The primary thrust of the program should be spelled out in the broad goals statements: For whom is the program being established, what is the nature of the training, what benefits -- skills, attitudes, knowledge -- will accrue to the students? Determining answers to these questions will involve a review of the program's effects upon the students, the institution, and the community.

In their program and course approval request forms, some districts ask that coordinators identify their program work plan and their program evaluation concepts within a written goal -- objective frame work (20). Others emphasize the need to relate objectives to general education, institutional, district (39), and departmental goals. The State approval agencies request that state goals and long-term master plan goals also be considered when institutions draft program goals.

Since a great deal of study and research are involved in both the preliminary and definitive assessment portions of a proposed program, the goals

and objectives, as first determined, must be flexible to meet the changing program pattern. Note that the Guideline Chart reintroduces this same item in the Definitive Assessment (item 5B) study.

Major goals should encompass all of the Critical Path items listed in the Occupational Guidelines Chart 3A through 7A.

Questions:

1. Does the institution have a format for assisting instructors and others in the writing of goals and objectives?
2. Within the preliminary stage of establishing a new program, are there requirements for establishing tentative goals and objectives?
3. Are goals and objectives directed toward how students will benefit as a result of the program?
4. Are goals established broad enough to encompass occupational and general educational needs?
5. Are objectives written to complement the goals? Are they measurable?

IDENTIFY JOB TITLES AND JOB OPPORTUNITIES

10

Guideline: Since the primary reason for establishing a new occupational program is to prepare students for employment, a primary function of a proposal coordinator should be to identify tentative job titles and possible job opportunities.

Procedures: One of the early questions that an institution must ask when considering a new program relates to the aims of the program. Whether the program is to upgrade, provide retraining, or provide skill improvement, the institution then has to determine what skills, knowledge and attitudes are required and what instructional strategies are needed to meet those needs.

If the new program is not easily identifiable, the coordinator then must ascertain what job titles identify with the training to be provided. The two sources utilized state-wide are the Classification of Instructional Disciplines (C.I.D.) and the Dictionary of Occupational Titles (D.O.T.).

After ascertaining the various jobs that are closely identified with the proposed program, the coordinator must make a survey of the job market supply and demand. He or she should have a preliminary overview of the various jobs available for trained students.

At this point, extensive research need not be made of all job-related factors, but the coordinator should obtain some information on current and future job opportunities: These include salaries, advancement possibilities, opportunities for handicapped and/or minority students, societal changes that may affect the jobs contemplated, jobs available for "non-graduates," and available internships, cooperative education, or work study opportunities.

Obviously, this is an area where an advisory committee, including community business men and women, could assist in many ways. Such committees often make commitments to provide job opportunities for both the graduates of the program and those enrolled in the institution.

Consideration must also be given to the labor supply, and whether the area is producing too many trained workers for a limited number of jobs.

Questions:

1. Has the coordinator of the proposed program identified the job titles toward which this program is directed?
2. Has a tentative determination been made as to the nature of the job training -- e.g. is this a re-training or a skill improvement course or program?
3. Has an overview of potential job opportunities been made?
4. Has the coordinator identified societal and technological factors that might affect the future job market?
5. Have various factors related to the job been considered: pay, advancement, student work, health limitations?

ASCERTAIN SKILLS, KNOWLEDGE AND ATTITUDES REQUIRED

1E

Guideline: After determining the specific jobs for which training is proposed, the coordinator should identify the skills, knowledge factors, and attitudes necessary for the job applicant.

Procedures: Many respondents to this Project's questionnaire reported that they established, usually through the assistance of advisory committees, lists of occupational skills that student graduates should have for specific jobs. Included in such listings were comprehensions, and computational, manipulative, and communication skills (20).

In some instances schools have identified entry level job operations expected of their graduates. Other schools describe the standards as levels of proficiency expected at program's end. Still other institutions have more fully listed the broad concepts, information, and attitudes that they feel job-trained students should possess (22). Utilization of such standards by those involved in both student teaching and in later evaluation efforts appears abvious.

In their internal approval forms, some institutions envelop all of these factors within their applications. In initiating new program requests, they write proposal descriptions as if they were to appear in a college catalog, stated in terms of the student learner -- what concepts, information, skills, and attitudes the student should possess upon finishing the program.

Questions:

1. Does the institution have an school approval form identifying skills and information that student graduates should possess after completing an occupational program?

2. Does the institution have procedures for obtaining the information for identifying graduate skills, information, and attitudes needed for obtaining and holding jobs?
3. Are the data obtained regarding student skill, attitude, and knowledge factors provided to potential students? To the community?

IDENTIFY POSSIBLE INSTRUCTIONAL STRATEGIES

1F

Guideline: Tentative instructional strategies directed toward providing the required training should be determined after reviewing the various qualifications for a trained job applicant.

Procedures: Since much of the determination of whether or not a new occupational program can be initiated rests upon personnel and budgetary needs, which in turn are dependent upon the anticipated teaching strategy, it is incumbent upon the coordinator to determine relatively early in the assessment study what the anticipated methodology and curriculum are to be.

Some early consideration must be given to the total program structure and to the sequence of courses involved. Some current courses may be supportive of the new program; some current ones may be altered or replaced. Some decisions have to be made regarding which courses will be credited and which elective. Fairly early in this review must come a consideration of the nature of the students coming to the program: Will remedial work be needed? Will the students need day or evening courses? What will be the students' needs for space and facilities? These questions are handled more fully later in the handbook, but they obviously are a part of this portion of assessment, too. Some thought must be given to the possibilities of special laboratories, modular scheduling, and the use of community equipment and facilities as well as the effects of these upon students' time and transportation.

As described in the previous sub-unit (1E), the institution should determine the skills, information, and attitudes required of program graduates. Now the coordinator is to tentatively identify how these are to be taught.

Questions:

1. Has consideration been given to prerequisites, pre-testing, individualized study, use of learning resource centers, tutoring, counseling? How definitively should course outlines be drawn at this time?
2. What will be the anticipated course and program completion time?
3. Has consideration been given to the relationship with community sources: work-study, cooperative education, field trips, internship programs?
4. Does the instructor have a specific format for early identification of new program teaching strategy?
5. Is program content inclusive -- both theory and practical aspects included?
6. Do opportunities exist for laboratory and job settings for students?

IDENTIFY PERSONNEL NEEDS

1G

Guideline: Prior to moving to a definitive assessment of a proposal, a tentative overview of personnel needs should be made.

Procedures: Although a major part of budget determinations, the personnel requirements of a new program are so significant that they should be reviewed early in the program planning as a separate factor.

In a review of personnel needs of a new program, instructors are usually seen as the primary consideration. The qualifications desired and the availability of potential teachers should be determined relatively early in the program. The obvious first question is related to the availability of such instructors from the present staff; are these teachers available now or will in-service training be required? If the present staff is not adequate, will recruitment fill the need? Another determination is to ascertain the qualifications of such teachers, e.g. will credentialing or special degrees be required? When would new faculty be hired? As part-time or probationary?

The new program may also displace some instructors. Consideration of this eventuality is common in ROC/ROP, adult schools, and college evening division programs. Some planning also may be necessary to meet the increased demands of other non-administrative personnel, to identify additional counselors, librarians, specialists and consultants who may be needed.

Another personnel aspect to consider is whether or not additional administrative personnel will be required to develop and operate the program. If not full-time, what percentage? Will consultants or professional experts be required for the program?

Although covered more thoroughly later in this manual (7C), planning should also take place with other personnel, and the potential effects of the new program on both the classified staff and students workers should be mentioned. Again, can shifting of personnel meet the program's needs or must new staff be hired? Will in-service training be required? What are the classified needs -- clerical, custodial, technical? Are these readily available?

Many institutions have expressed concerns about hiring for short term needs that may lead to long term trouble. Some institutions recommend hiring short term, part time, or substitute workers until the institution is convinced that the program will continue beyond a year or two.

Questions:

1. Are qualified, credentialed instructors available if a new program is initiated?
2. If in-service training is necessary, are consultants or teachers available for such?
3. Are specialized personnel, such as technicians, needed? Available?
4. Has consideration been given to the effects of this program on other departments and their personnel?

DETERMINE RELATIONSHIP: STATE'S, DISTRICT'S AND INSTITUTIONS'S GOALS

1H

Guideline: A Program Coordinator should ensure that new proposals conform to the goals and objectives established by the institution, the district and the state.

Procedures: As with many aspects of occupational planning, the state approval agencies are requesting that institutions not only identify the program objectives but are also asking for explanations if the projected program is not in the State's master plan (5). At the community college level these educational master plans must be updated annually to conform with Education Code Sections 25427 and 2006(a).

In a similar manner, the coordinator must ensure that the district's and institution's rules and policies are observed. In multi-school districts, as an example, a policy is observed of shifting a new program to a "growth institution" or to another institution in the district that has an occupational "family" that normally would embrace such a program (28).

One of the functions of the coordinator of a new program should be to familiarize himself with the State and district's Vocational Master Plans, Title V regulations, and other legal and policy factors that might be involved in the new proposal.

Questions:

1. Has the new program coordinator familiarized himself with the various Educational Codes, state rules, and policies related to occupational education prior to initiating a proposal?
2. Has the coordinator followed a similar procedure with district and school policy and regulations?

IDENTIFY STUDENT NATURE AND NEEDS

II

Guideline: The coordinator of a proposed program should anticipate the nature and needs of the students entering the program.

Procedures: The program coordinator should make an early determination as to the nature of the students who will come to the program. Sometimes the program is directed because of the nature of the student -- that is, aged, handicapped, or minority students are solicited to enter a program because of its anticipated value to them. More often, the determination of the potential students is made by the coordinator through questionnaires distributed to the home, at another institution, or through counselors or advisory committees.

Although in this preliminary stage the coordinator will only be able to use data easily available, certain tentative decisions should be made. Among others, these should include anticipated actions necessary for publicizing the program, recruiting, and enrolling students -- and estimates of the quality of the students and expected enrollment size.

On the basis of these determinations, other decisions will be required. If the students will be educationally disadvantaged, some remedial or tutoring services will be required; if physically handicapped students apply, special consideration may have to be given to facility and equipment purchasing.

Enrollment estimates are crucial and in some areas fairly easily obtained -- e.g. students transfering from junior to senior high school -- but in other areas more sophisticated tools will have to be used. Projecting enrollment data from experiences of institutions having similar programs may assist coordinators who lack more definitive data. Information on retention also may be obtained from this source.

On the basis of information garnered about the enrollment and the nature of these students, various other projections will have to be made relating to the needs of the potential students. Consideration should be given to the increased load that may be placed upon student services -- for example, the library, learning resources, transportation, health services, placement bureau, the institution's counseling and guidance services, financial aids, veterans' services, and testing program.

Questions:

1. What is the evidence of student interest in this program?
2. Why will this program be attractive to students?
3. Have the societal needs of "new" students (veterans, aged, women, minority) been considered?
4. What are enrollment projections for the next 5 years?
5. What is minimal enrollment?
6. What special services will be needed for these students?
7. How will this program effect enrollment at this institution and at other institutions in the district?
8. What effects will be made to promote the program and enroll students?

ASCERTAIN STATE, COMMUNITY, DISTRICT AND INSTITUTIONAL REACTION

1J

Guideline: Prior to making a definitive assessment of a proposed program, a general overview should be made of community, district, and institutional reactions to it.

Procedures: In its guidelines, the college of the Siskiyous states that "The development, establishment and evaluation of an educational program shall include representative faculty involvement" (11:4). Many respondents to this Project's questionnaire indicated a similar pattern -- that new proposals be given wide publicity and that faculty, district, and community be involved in the development of the program.

The minimal early involvement at the school level should include the departments concerned, but many institutions broaden the institution's activities to include curriculum committees, faculty senates, and administrative groups in the planning phase of program development. This early involvement should enable the coordinator to observe the institution's reaction to the proposal, particularly as it may affect inter-departmental relationships, enrollment factors, scheduling, facilities, and equipment, as well as the initiation of reactions if licensing or accreditation with the program is needed.

Although only a limited number of programs require special accreditation or are closely identified with licensure -- and most of these are related to the health professions -- the coordinator should obtain full information regarding such accreditation and licensure early in the assessment process. With a proposed program in a health area, the coordinator should ascertain from the American Medical Association which accreditation association will

provide the accrediting forms; the California State Board of Licensure will provide information regarding those professions requiring licensing. Coordinators may be aware of national groups, not yet identified as accrediting or licensing agencies in the state, which may provide information of value in these areas.

Budget consideration should be given to those projects requiring licensure or accreditation; both the original costs and the yearly maintenance costs of licensure or accreditation should be anticipated.

Similar efforts should be made to inform various members of the District, other institutions, and the community of the proposed plan. Again, the purpose of such notification is to obtain reactions to the proposal. Among advantages to be gained are an early appraisal of the district's reactions, feedback from area schools with similar programs, articulation from feeder schools, and community reactions. Hopefully, unnecessary duplication can be avoided, prospective students are alerted, and future employers may contribute ideas and/or provide material support to the program.

The most common method of gaining early input from the community is through advisory committee involvement, but some institutions report making contacts with key personnel in the occupation involved without involving the formality of advisory committee meetings.

Questions:

1. After informing the institution, the district, and the community of the proposed program, is there sufficient support from them to move ahead with planning?
2. Does the program appear to be unnecessarily duplicating courses or programs already offered in the institution, in the district, or area?

3. Are the objections raised significant enough that changes should be made in the program?
4. What methods of providing information to the institution, district and community are used? Are they satisfactory?
5. Does the institution have a system for obtaining and evaluating information received relative to a proposed program?
6. Has the coordinator determined how to obtain special accreditation or licensing if such is necessary for this proposed program?
7. What are the accreditation agency or licensure board requirements?

MAKE PRELIMINARY ASSESSMENT OF REQUIRED RESOURCES

1K

Guideline: Prior to a definitive assessment of the proposed new program's required resources, a preliminary estimate based upon available information should be made.

Procedures: Rough estimates should be made of major cost factors for the proposed program, including such costs as personnel, facilities, equipment supplies, and needed support services.

After identifying these items, some general consideration of various methods of financing the program should be made. These would include costs that can be met with current resources (e.g. transfering of instructors, use of present facilities and equipment); estimate of additional costs; consideration of feasibility of special funding from the district, state, or federal sources; and identification of any potential financial assistance that might be available from private sources.

Questions:

1. Does the institution have a system to assist in making preliminary cost analysis?
2. What are the estimated costs for the major budget items (personnel, facilities, equipment)?
3. What percent of the major budget costs can be met using current supplies of equipment, personnel, and facilities?
4. What additional costs will be expected after deducting current resources from anticipated needs?
5. What are the anticipated funding sources -- instituional, state, federal, private business?

IDENTIFY TENTATIVE EVALUATION SYSTEM

1L

Guideline: During the preliminary assessment stage, consideration should be given to evaluation methods that might be utilized when the program is operative.

Procedures: Although realizing that all factors relating to the proposed program have not been determined at this time, the coordinator of a program should recognize that many phases of a new program will have to be evaluated. Tentative monitoring and evaluation systems should be identified in the initial proposal planning stages.

The coordinator should attempt to ascertain what aspects of the program will need to be evaluated. The coordinator should also ensure that a monitoring system is being identified as the program proceeds toward its stated objectives.

Questions:

1. What aspects of this program should be monitored? Evaluated?
2. Have other institutions with similar programs been contacted to determine their evaluation methods?
3. Are stated objectives measurable?
4. In assessing evaluation possibilities, what consideration will be given to the following evaluation systems and/or areas: students placed, attrition, student and faculty evaluations of program, advisory committees evaluations, course evaluations, evaluation of instructor effectiveness, evaluation of placement services, evaluation of ancillary services, adequacy of field experiences, effectiveness of promotion system, provision for student services, opportunity for student self-evaluations,

guidance/counseling effectiveness, methods of administrative and supervisory evaluation?

5. Who will be primarily responsible for the evaluation of the program? What one person?
6. Are any of the California statewide systems (COPES - SAM -DROVE etc.) to be used?
7. Has a county agency been considered as an evaluation body?
8. Has an academic department been identified for its part in the evaluation system?
9. Has the institution developed a self evaluation system (18)?

INITIATE DEFINITIVE ASSESSMENT

2A

Guideline: After making a preliminary assessment of a proposed occupational program, a definitive assessment should be initiated if the determination is to proceed.

Procedures: Some basic research data must be obtained prior to initiating a new program. The program coordinator must establish a system of data collection, analysis, and decision making. How extensive such a system is to be is dependent upon the nature of the program.

In larger districts, or where more complex programs are planned, some consideration must be given to the following: Assignment of specific responsibility for obtaining and coordinating research information; determination as to whether additional funding and/or consultants will be needed for reserach; establishment of a time line for obtaining and reviewing information pertinent to decision-making.

The major functions in the research phase of program initiation will be to analyze employment demands and potential labor supply, to conduct a literature search, and to ascertain the institutional and community support for the program. At this point, the program coordinator must also consider whether to utilize an advisory committee or to establish a new one to assist in the research and analysis stage or to wait until the program has developed further.

Questions:

1. Has the institution an organized research system?
2. Has some person been given the responsibility for coordinating the research information for the program?

3. Have timelines for data gathering, analysis, and decision-making been established?
4. Will consultants be needed? If so, at what time and cost?
5. Will release time be granted for research work or will an institutional research coordinator be assigned?
6. Have the parameters of a literature search been established? What pertinent literature (ERIC, etc.) is available?
7. Is there an established advisory committee that could provide pertinent information for this program?
8. Should a new subject advisory committee be established to assist this program?

ANALYZE EMPLOYMENT DEMAND AND POTENTIAL LABOR SUPPLY DATA

3A

Guideline: Since the primary purpose of occupational education is to prepare students for jobs, a new program should be initiated only after a thorough assessment has been made of employment opportunities and labor supply information.

Procedures: The coordinator of the proposed program should utilize a wide variety of methods to ascertain the current and future job markets. The most common procedures include utilization of information garnered from advisory committees, various private and governmental agencies, surveys conducted among local employers, new industries in the area, and information supplied by the institution's staff.

A major decision must also be made as to the geographical area to be encompassed in the study. As pointed out in the New York State handbook (32), there is a great variance in how inclusive such a study should be and what areas should be considered. A question as to whether to initiate a program in accounting that would be significant for its graduates on a national scale would be treated very differently from one in which a study must be made to ascertain the job opportunities in the field of opthalmic optics. In the first instance there is a steady national demand; in the latter, a well-defined occupational market must be identified.

All of the California program approval agencies are now insisting that evidence of job market analysis, surveys, and other information identifying job possibilities must be included in the applications for new program approval (5).

The various subsections under this major "critical path" box describe current state practices of occupational administrators as they seek to gain information relating to manpower information. Efforts are directed toward obtaining data from various statistical gathering sources and via contacts with employers and institutions providing first-hand information on current area labor needs and labor supply sources.

OBTAIN JOB INFORMATION DATA

3B

Guideline: Prior to the initiation of an occupational program, a thorough study should be conducted of materials from and contacts with individuals and agencies gathering and analyzing manpower data.

Procedures: What information is the coordinator seeking? An identification of the nature of various job opportunities, job titles, and job skills, knowledge, and attitudes required for placement should be included. An evaluation of such data should assist the planner in determining the nature of the program--should it be directed only toward job placement or should it emphasize advanced placement and/or upgrading of skills? Possibly a course or two within a currently operating program might be adequate, eliminating the necessity of initiating a new program.

As with procedures for obtaining employment demand information, data regarding labor supply comes from a variety of sources: governmental agencies (e.g. Labor Department, Bureau of the Census, Commerce Department), licensing and accreditation agencies, the California Manpower Management Information System (41), business and industry sources, and other public education institutions in the area. Institutions seeking a model to use in obtaining both employment demand data and labor supply information might obtain a copy of the application of the 1975 CMMIS material to program planning from Dr. Chester Howe, Director of Occupational Education in the Simi Unified School District, Simi, California. Some caution against too extensive dependence upon these data was stated by members of this Project's consortium and repeated in material sent to the Project from New Jersey. "The national and state manpower data does

not usually play a very important useful direct role in determining need for a community college program. Rarely is this data sufficiently up-to-date or specific to be helpful. Neither does it take into consideration the source of supplies which may be over producing manpower" (30:25).

In addition to the information that can be garnered from the sources listed, other labor supply sources may include an inflow of workers to the area, individuals trained in private schools, in correctional institutions, in the military, or through CETA.

Other major factors to consider in determining potential labor supply are related to the desires of the community itself. The obvious potential source comes from a sequence of students: the junior high student for senior highs, the high school students as potential ROC/ROP or community college students. To ascertain occupational desires of these students, various survey instruments have been described in this manual under Title 5C, "Obtain Student Reactions."

Another valuable resource for many institutions has been the Employment Development Division of the State. Again, both written information and personal contacts with the division's personnel have proven valuable to occupational program coordinators. Similar positive reactions were reported by consortium members in referring to information gained from CETA personnel.

It is anticipated that by studying national, state, and area statistics, the program coordinator will be able to identify job titles, employment trends, and types of industry desiring employees who are to come from the projected program.

Questions:

1. Does the institution have a systematic program for obtaining

information relating to the potential labor supply?

2. Is this material available to faculty and staff?
3. Is there a method of encouraging dialogue among the institution's personnel and those representing governmental and other agencies and departments that provide information relative to job skills improvements and job opportunities?
4. Has the institution been involved with the state's efforts to provide up-dated and pertinent manpower information (e.g. CMMIS and SAM)?
5. Does the information gained by the coordinator reviewing the manpower data alter the nature of the original proposal (e.g. cost factors, teaching strategy, student characteristics)?

CONDUCT EMPLOYER SURVEYS AND PROJECT EMPLOYMENT DEMANDS

3C

Guideline: Although some programs are established for very broad geographical areas, most institutions identify a majority of their occupational programs with the needs of their community. Before establishing a program for a specific geographical area, the initiator should obtain local manpower information.

Procedures: After identifying the geographical area to be served, the program coordinator will have to determine the methods to use in obtaining local information regarding the job-producing possibilities of the proposed program. A variety of methods have been utilized: a random sampling by mail of industries in the area that might utilize the program's graduates; the use of an advisory committee's recommendations; personal contacts made with key persons in the occupational organizations related with the proposal (36). Data from any one of these systems should be coordinated in order to avoid the distortions arising from any one of them.

The format for employer surveys in the State varies considerably, but many incorporate the following materials: an opening statement is made describing the local area to be surveyed (21) and the projected program, and an appeal is directed to the recipient to assist the institution by answering such pertinent questions as: Do you see this occupation as a viable one? Is it one in which employment will vary considerably from year to year? What will the employment opportunities be for graduates? For part-time work while at school? What will graduates be paid? What opportunities will there be for pay increases? For

opportunities to advance? What related career ladder fields are available? What increases in employment in this occupation does the company anticipate this year? In the next four years? What opportunities are there for placement in advanced training in the same occupation?

Huntington Beach High School (20) requires that at least five potential employers do one or more of the following: hire trainees, assist in planning and promoting the program, agree to provide a training facility, agree that the program is needed. An interesting and extensive area employer survey was done by Harbor College in the Los Angeles District in 1975 which illustrated the difficulties inherent in long-term projections in a metropolitan community (24).

Written descriptions of advisory committee surveys were scarce, but many of the questions listed above were posed by some, with a few institutions identifying such additional questions as: What percent of the committee endorsed the proposed program? What were the objections of those who dissented? As with previous guideline data, state agencies are requesting information from institutions about the results of their employment surveys and job market analyses (5).

Excellent employer follow-up materials, methods and suggested procedures are provided in a recently issued manual for community colleges by Dr. Ben Gold (17). Information provided should be valuable to all program planners whether college, high school or ROC/ROP based.

A complete description of one district's survey techniques and planning process is provided in the "Planning Process Manual for Vocational Education" prepared by Maribeth Potter in 1975 (41). This system utilizes the California Manpower Management Information System (CMMIS), and incorporates a cover letter to employers, a description of

interviews, a questionnaire, and follow-up letters. Among other benefits derived from this survey was that of obtaining a volunteer committee to assist with the future implementation of the proposal and to publicize in the community the possibility of establishing a new occupational program.

Some questions have been raised about employer survey methods that may be of value to the planning coordinator. A good summary of these is found in New York State's "Program Planning in Two-Year Colleges" (32:62,63), in which the following questions are raised: "How well does the contact person understand his firm's future needs? How frank? What contingencies may change his opinion? What factors are most influential in determining a firm's needs?" This Cornell study urges program initiators to check employer estimates with labor unions, business and professional associates, governmental agencies, and urges them to be aware of the possible biases of employers. Another question to consider is the degree of commitment on the part of firms replying to the questionnaires?

Questions:

1. What are the various methods the coordinator of a proposal uses to obtain the employment demand data needed?
2. Has the coordinator analyzed the data sources to reduce the bias factors often present in obtaining such information?
3. How is the determination made as to which geographic area the new program will serve?
4. How complete is the questionnaire concerning employment--are questions posed on trainee salaries, graduate salaries, and future opportunities of graduates?

5. Are employers asked to commit themselves to assist the program?
6. What actions are taken to check information provided by employers with other data sources (e.g. governmental data banks, institutional staff members, labor organizations)?

OBTAIN LOCAL LABOR SUPPLY DATA

3D

Guideline: Prior to initiating a new occupational program, the coordinator should have a thorough knowledge of the area's labor supply sources to ensure that there will be a sufficient supply of trained workers.

Procedures: Major efforts of the coordinator seeking information relating to the current and anticipated supply of trained job applicants must be directed toward articulating with the various area institutions and toward determining if there are significant changes in the demographic patterns of the community. Some part of this articulation effort should be directed toward obtaining information from educational agencies, business firms, and non-educational agencies, such as hospitals, which often provide major in-house educational programs. The primary purpose of these efforts are to determine the nature and number of persons who are currently being trained or who will be trained in the near future.

Even more significant data can normally be obtained by the coordinator from the various educational institutions in the service area. The primary effort should be to determine whether too few or too many job applicants are being trained.

According to the nature of the program, a determination must be made as to which educational institutions should be contacted, but in some instances all public and private high schools, ROC/ROPs, community colleges, private schools and universities have valuable input and should be approached.

Various types of information-gathering forms are being utilized to determine the number of students completing training in any one occupational area. One used by the Los Angeles Unified School District is illustrative of such forms (8). Included in this survey are such questions as: Is training for this occupation currently being offered? Do you plan to offer such in the immediate future? Has this program been offered by you in the past? Reasons for discontinuance? If offered previously, what was the course length?

Other similar survey forms are utilized with the major objective in mind--that of ascertaining the current and future market for job-trained applicants. Many occupational administrators also obtain valuable data covering this subject at such vocational area functions as RAVE Council meetings. Members of this Project's consortium also recommended that occupational administrators keep apprised of the information available from demographers who can provide valuable input regarding the local employment at labor supply.

On the basis of the information provided in formal requests and the information gathered from demographers and from colleagues in the area, the coordinator must make an evaluation of the potential for graduates in the proposed program.

Questions:

1. Does the institution have good articulation with proprietary and public schools, colleges, and universities in its market area?
2. Is there a systematic method of obtaining information relative to labor supply factors from these institutions?

3. Are records kept to ascertain the value of market area data submitted?
4. Does the institution have systematic methods of obtaining labor supply data from agencies, businesses, or industries that provide personnel training?
5. Does the institution have access to labor supply information from such governmental agencies as the California Employment Development Department and the U. S. Department of Labor?
6. Does the institution obtain and utilize local labor supply data from demographers?

PROJECT LONG RANGE EMPLOYMENT SUPPLY AND DEMAND DATA

3E

Guideline: On the basis of information obtained from employment demand and labor supply sources, the coordinator of a proposal should be able to project for five years the manpower needs for the particular occupation.

Procedures: Many states (42) and school districts include in their written guidelines a mandate that employment demand and labor supply data be included in any request to initiate a new program (7). In addition to requests for narrative accounts of such information, some districts have established forms encompassing what the schools must provide. These usually include a request for a job description, what the expansion and replacement needs are to be, the geographical area to be serviced, a detailed market analysis, and a description of the sources of information. At San Mateo Community College the administrative procedures state that "programs will be established only when job opportunities can be anticipated for a period of at least five years. Occupational programs will be developed only when there are job opportunities expected for at least a minimum class of graduates per year" (38:1).

Administrators seeking a good model utilizing CMMIS will want to review the manual produced at Simi Valley Unified School District (41) that was previously identified in this booklet.

Questions:

1. Are comprehensive data incorporating area demand and supply information available at this institution? Have procedures been established to obtain such information?

2. Have criteria been established upon which information received can be evaluated and utilized?
3. Is the staff familiar with the general methodology involved in obtaining and evaluating manpower information?
4. Are distributed questionnaires analyzed as to their purposes? Their effectiveness?
5. Who is involved in analyzing data received and in making recommendations as to whether to proceed with the proposal planning? How effective is this system?
6. Is the five-year minimum time rule for a program used at this institution? Is it a practical rule?

DETERMINE SCHOOL, COMMUNITY AND STUDENT INTERESTS

4A

Guideline: A new occupational program should be initiated only after ascertaining that it has, or probably will have, the support of the school and the community, and will attract student enrollment.

Procedures: Prior to initiating a program, a coordinator should attempt to determine what the effect of such a program will be upon the community and upon the institution. Various techniques are used throughout the State: research is made on similar projects in other areas; needs assessments are conducted; questionnaires are sent to the community and to the institution's personnel (faculty, administrators, and students); administrators may survey other institutions when it appears likely that students questioned might attend the administrator's school; and some institutions provide a system of inviting institutional and community feedback to proposals prior to submitting them for state approval.

This portion of program assessment is a crucial one requiring careful analysis by the coordinator. Normally, at this assessment stage, the definition of the proposal is still in the formative stage, and the program may not become operational for a good number of reasons. Some institutions replying to the questionnaire point out that the coordinator must guard against too strong an advocacy of a proposed program that may not be approved. At the same time, he or she must keep the institution and community informed as to its progress. Particularly important is the need to keep good communication among those who are later to implement the program.

The following sections describe the various methods that have been

used throughout the state to determine whether there will be sufficient enrollment and whether or not there will be support from the institution and the community.

OBTAIN POTENTIAL STUDENTS' REACTIONS

4B

Guideline: Since the primary purpose of establishing a new occupational program is to provide job training, every effort should be made to determine potential students' reactions to a proposed program.

Procedures: As with other aspects of proposing new programs, the State of California has mandated that some evidence of student interest in such programs must be included in the institution's request for program approval (5). Most of the respondents to this Project's questionnaire had established procedures designed to obtain student interest information. Some replies indicated that the institutions relied upon staff input--faculty, administrators, and counselors. However, none of those relying on staff input alone identified any formalized system of obtaining their data.

Senior high schools, ROC/ROPs, and community colleges have all used student body surveys of their own institution or of feeder schools to obtain more definitive information of the occupational interests, aptitudes, and career goals of students.

Those institutions wishing to obtain a complete model of student career assessments which utilizes the CCMIS concept will find a thorough coverage of the process in the Simi Valley Planning Process Manual. This manual describes the use of the California Personnel Inventory, the student career profile, school summary reports, and Ventura County Statistical Reports (41).

Additional resources have become available to obtain information of student interests in various occupations through the increase in comprehensive career guidance centers based on the supermarket concept.

These centers assist students in making tentative career decisions, testing them through part time work or cooperative education work experience programs, and planning educational programs in line with their goals. In the process, career counselors and placement interviewers collect a great deal of information on student's occupational choices.

The increase in placement centers also has contributed to an increase in the amount of information available to educators on student interest in various occupations. In addition, the proliferation of outreach teaching centers by all elements of education may provide another source of information. Community members, who in the past could not be reached, can now be carefully questioned as to their occupational preferences.

The "new students" (e.g. the handicapped, women returning to education, and senior citizens) attending primarily Regional Occupational Centers, adult schools, and community colleges, may serve as the focus of new programs. Here student interest may not be too evident in an early random sampling of a group and accordingly, a major effort to promote the program by explaining its advantages and disadvantages to a target population may be required before a meaningful survey can be taken. Prevocational orientation and exploratory experiences are examples of effective ways used by some reporting schools of introducing prospective students to new occupational fields.

According to questionnaire respondents, the coordinator of a new program should be able to provide sufficient relevant information regarding student interest so that there is promise of a starting class and of continued enrollment through a five-year period large enough to warrant continuation of the program. Some responding schools cautioned

that the absence of high student interest in itself should not rule out consideration for a curriculum that has good jobs waiting at the end of the line.

Questions:

1. Does the institution utilize an on-going system for obtaining potential student reactions to occupational education opportunities--both from the school's population and from other community sources?
2. Are there criteria established for analyzing and utilizing information received?
3. Does the institution maintain constant articulation with other feeder schools and with colleges and universities that could provide insight into the occupational interests of future students?
4. Does the institution have contacts with business and industrial firms, and with private and governmental agencies to ascertain whether their employees might be interested in this program?
5. After reviewing the materials relevant to potential student interest in the proposed program, does the coordinator wish to continue the definitive assessment study? As a result of the information gathered from the review of student interests, are there changes that should be made in the originally conceived proposal?

DETERMINE INSTITUTIONAL AND COMMUNITY REACTIONS

4C

Guideline: The coordinator of a proposed occupational program should ascertain the nature and amount of support the program will get from both the institution and the community.

Procedures: Although some community and institutional reactions may be obtained by the coordinator when potential student reactions are sought, additional efforts should be made to determine the support of the institution's staff and the community in general.

Particularly important in initiating a new program is the staff reaction. Both the administration and the faculty should be familiar with the proposal as soon as possible -- in order to assist in its development and later to help in its implementation and evaluation. Several colleges reported that their communication system for proposed programs included early notification of departments concerned, faculty senate committees, curriculum committees, advisory committees, district committees, and student groups. In many of these contacts, feedback was requested in the form of suggestions and reactions to the program. Particularly sensitive areas are those related to budgeting, staffing, problems arising from the effect of the proposed program upon other programs at the institution or in the district, and ensuring that articulation agreements with other institutions were considered in the planning (14). Additional aspects of the effect of a new program on other programs are covered in this manual under 5D, "Ascertain effect on other programs."

Another area where information and feedback are necessary is the community where the institution is located. Already noted are efforts to alert business, industry, and various community agencies about the proposed program

as it relates to manpower data. Other contact methods mentioned in questionnaire replies included communication via radio and television, and through parent-teacher organizations, the Chamber of Commerce, local unions, and various types of coordinating councils (33).

That the proposed programs may involve problems of professional ethics was another community consideration to which the coordinator must be sensitive according to the consortium members. Recent problems relating to the medical profession and nursing were identified. Here close communication with professional associations, licensing boards, and accreditation committees was advised.

More and more attention is now being given to the need for avoiding "unnecessary duplication" of existing courses (5). The State Chancellor's office of the Community Colleges has identified a large number of programs that may not be offered unless special approval is obtained (3).

State regulating bodies are quite specific as to the proof required to show that there is need for a new program and that the program is not unnecessary duplication. The community colleges are directed to: "Report interdistrict attendance agreements, actions, and comments of area or regional councils, inter or intradistrict advisory groups, advisory committees or similar bodies testifying to the need for program. Attach minutes"(5).

The establishment of Regional Adult and Vocational Education Councils (RAVEC) has emphasized the State's insistence that new occupational programs receive area-wide scrutiny. City College of San Francisco identifies some of this regional planning as a positive way to obtain information on similar programs by obtaining information on costs, retention, successes, and problems (36). San Bernardino Regional Occupation Program requests that a description be provided as to "how this program has been articulated

with existing programs at the community college, adult schools, high schools, and/or other training programs (34).

An early effort to provide regional or community cooperation among the various institutions within the same area was CHAR, (College, High School, Adult School, and Regional Occupational Programs and Centers), and organization established to provide program accountability and to reduce program duplication. The model established serves as "an occupational guidance and counseling tool for students and educators" (43:6). In a booklet describing the program, Dictionary of Occupational Titles titles for numerous occupations are identified and listed along with the various area institutions that provide training for each of the jobs. In addition, the CHAR organization examines programs in the area to avoid duplication of effort, and advisory committees are established to ensure that courses are realistic, to ascertain when new courses are needed, and to recommend when programs should be modified to meet current needs.

Similar regional planning groups have been formed in other parts of the state; these include the San Diego Area Community College Vocational Education Planning Committee, the San Joaquin Valley Community College Council for Occupational Education and the Santa Clara County Community College Area Planning Council.

A coordinator of a new occupational program is often faced with the problem of avoiding "unnecessary duplication" of programs. What is "unnecessary"? Pressure for new programs surfaces when the job market appears sufficiently strong to warrant additional programs or when pressures come from students, trustees, and/or the community. The administrators must first ascertain whether similar programs are being offered in the area and then whether or not the contemplated program offers "unnecessary duplication."

Programs with similar names may vary considerably. Los Angeles Unified School District Regional Occupational Centers and Programs identify some distinguishing factors that may separate programs which on the surface appear to be similar. These include a careful review of the program prerequisites (student test scores, courses, experiences, abilities), the course objectives and course description, and special employment criteria (26). Other factors of significance that would appear to separate programs sufficiently so that they would not be identified as "unnecessary duplication" would include: the distance factors involved when similar programs are in quite separate locations even though in the same service area; the time factors involved in completing the programs; and the teaching methodology.

Questions:

1. Does the institution have a system of communication by which it can readily disseminate to faculty, staff, and community information about a new curriculum? Does it have a way of accurately determining what the reactions of these various groups are?
2. Has the institution established good contacts or relations with professional groups, businesses, and labor so that when sensitive curricula are proposed, an opinion representing the group affected can be obtained?
3. Is the institution familiar with the State Chancellor's list of "specialized programs" (July 6, 1976)?
4. Are early contacts with RAVE Councils made when new programs are in their initial stages?
5. Does the institution have a definition of "unnecessary program duplication"?

DETERMINE CURRICULUM NEEDS AND AVAILABLE RESOURCES

5A

Guideline: Prior to identifying budget factors or moving toward local and state approvals for a new program, the coordinator should carefully assess the proposed curriculum.

Procedures: The curriculum assessment should include efforts to clarify the program's needs, goals, and objectives; identify methods of improving student skills and abilities; ascertain what the program's affect will be on other programs, and determine when and where to establish the new program; and anticipate what enrollment the program will draw.

Although the needs and resource assessment of a proposed program curriculum can be made by the coordinator, many of the districts replying to this Project's questionnaire recommended that such studies be done with the active participation of an institutional or institutional-community advisory committee. In addition to the expertise that such a committee can bring to bear on the questions relating to budget and curriculum, members of these committees are often those individuals who will be most active in establishing and implementing the programs.

The organization and function of these committees varies considerably throughout the State. Some institutions utilize only institutional members--(often a curriculum committee); others rely heavily upon committees with large numbers of community members. These can be helpful when the primary objective is to determine what the best curriculum for job-training should be.

Most respondent colleges identified curriculum committees as

significant determiners of policy making in program initiation. Some high schools also reported utilizing these committees in this manner, e.g., Tulare (45) and Long Beach (23).

The various colleges reported that their curriculum committees performed rather uniform services: review of all proposed new courses and programs; review of all proposed deletions or changes in catalog descriptions; and review of any contemplated changes in hours and units prior to their being sent to the president's cabinet and/or to the Faculty Senate.

Various methods of handling new programs were reported by Canada College, Foothill, Cuesta, and Cosumnes, with Yuba College providing a quite detailed list of curriculum committee functions. Yuba College uses this committee in the following instances: when any research or campus-wide study relating to curriculum development is needed, when any modifications are proposed which would significantly alter programs in a division; when one division's plans have significant impact on another division; when the committee is asked to arbitrate between the administration and a division; and when any recommendation is made to discontinue a program without the joint approval of the division and administration (48).

In multicampus districts, many of the above areas receive a second "review" by District Curriculum Committees that often screen proposed programs prior to their being submitted to the Boards of Trustees or to Sacramento. Some districts rely upon occupational committees utilizing both faculty and community advisors to assist at this stage of curriculum development.

Questions:

1. Does the institution have a broad-based committee to assist in the determination of policies and procedures for reviewing the curricular aspects of a new program? Are the functions and limitations of such committees spelled out?
2. Does the institution have a system for providing curriculum change information to its own faculty, area schools, and to the community? Are there provisions for feedback?
3. Does the institution encourage curriculum change? How?
4. Does the institution have a method to lessen the possibilities of arbitrariness by either faculty or administration in developing the institution's curriculum?
5. Does each proposal receive a review and/or an "approval" from the institution's curriculum committee (or its counterpart)? Has the utilization of an occupational advisory committee been considered for some phases of the curriculum planning?

CLARIFY PROGRAM'S NEEDS, GOALS AND OBJECTIVES

5B

Guideline: As the definitive assessment of the proposal progresses, the originally identified needs, goals, and objectives of the program should be revised in light of the information gathered.

Procedures: After researching employment demands, analyzing potential labor supply data, and identifying institutional and community interests in the program, the coordinator should be in a position to make proposal modifications--particularly relating to the original goals and objectives.

A review of the preliminary assessment information should identify the original tentative decisions that should now be solidified or altered according to the additional definitive assessment data. The whole range of items identified in the preliminary assessment should be reconsidered: job titles, the students' skills at program completion, instructional strategy, and personnel needs, among others.

A clarification of the program description itself should be initiated. Some institutions have urged that the description should be written as though it were to go into a college catalog with particular emphasis given to the student competencies to be developed. Specifically state what the student will be able to do when he completes the program. Give attention to: skills to be acquired, transfer possibilities, (and) employment opportunities (4). The Los Angeles Unified School District ROC/ROP office requests, too, that all information obtained to establish the need for the project be included in the application for approval (25). The coordinator should be able to assist the

proposal developers in writing clearly stated, relevant and realistic curriculum goals.

At this point objectives for the program should be rewritten with particular emphasis in each course upon the student competencies expected upon program completion and methods of evaluating each objective. Some districts recommend that such objectives be measurable and state that if applicable, career ladders be identified also (11).

Of increasing importance in occupational program planning is the need to include in the program objectives the special efforts being made by the institutions to encourage the "new students" to attend--women, aged, minorities, and handicapped; to ensure that the curriculum is free of sex or racial bias; and to provide special teaching approaches and services to encourage student retention (2).

Questions:

1. On the basis of the new information gained as a result of the definitive assessment, have the original goals and objectives of the proposed program been improved?
2. Has the time schedule for initiating the program been changed?
3. Have all aspects of the preliminary assessment been reviewed to ensure that a complete definite assessment has been conducted?
4. Has the program proposal moved away from a generalized plan to one which now incorporates specific courses with emphasis upon sequential learning?
5. Are goals and objectives written in such a way as to emphasize student competencies?
6. Have factors related to encouraging and retaining the "new students" been incorporated into the goals and objectives?

DEVELOP TEACHING STRATEGIES

5C

Guideline: After having made a definitive assessment of a program proposal's goals and objectives, a thorough analysis of the proposed teaching strategies for the program should be initiated.

Procedures: At this stage of the definitive assessment, the program director should have received sufficient input relating to manpower projections and institution and community reactions so that a definitive assessment can be made of the program's teaching strategies. In as sensitive an area as this, close support of the instructors, the departments concerned, and advisory committees is normally sought.

Basically, the institution is now attempting to identify which general educational processes will enable the students to acquire the characteristics, skills, and attitudes that "graduates" of the program should possess. At this time the courses for program completion should be established, the interrelationships between this program and others at the institution should be clarified (see additional data in section 5D of this manual), opportunities for field work or work experience should be identified, the minimal standards of student performance expected, the hours and credits determined, and the testing and grading policies ascertained.

At this time, too, courses to be included in the program should be listed including an expected sequence or learning pattern (5). Some districts also require that course outlines, including skill performances and knowledge objectives, be incorporated in any proposal application submitted for approval.

Other significant factors for consideration in this definitive assessment stage of program determination should include an understanding of the nature of the students entering the program--whether prerequisites are to be established and whether student pre-testing should be scheduled. Particularly significant factors relating to methodology must also be reviewed: how much theory and/or practice should be incorporated in any one course? Are work experiences, work studies, clinical practices, or field projects a part of the proposed teaching strategy for this program? What supportive elements are necessary for a successful program (e.g. counseling, guidance, financial aids, basic skills improvement, library, job placement)?

If the coordinator is not familiar with curriculum development, assistance can be obtained through universities in-service training, and from county curriculum specialists, state consultants or other resources.

Questions:

1. In the light of data observed, what are the teaching strategies that appear to be most promising for this program?
2. Have the departments, instructors, and administrators who will later be closely involved with this new program been kept sufficiently aware of its assessment progress so that they can assist in planning teaching strategies?
3. Has the research or literature survey identified any innovative teaching methods that might be utilized in this program?
4. Have occupational leaders in the community been involved in the development of teaching strategies?

5. Have the major anticipated student learning skills, knowledge, and attitudes been sufficiently identified so that the teaching strategies for each can be easily designated?
6. Is there sufficient knowledge of the characteristics of students coming to this program so that anticipated teaching strategies have taken these into account?

ASCERTAIN EFFECT UPON OTHER PROGRAMS

5D

Guideline: Following its development, the coordinator should review the proposed program to ascertain its relationship with other programs at the institution, in the district, and in the area.

Procedures: Assessment of the implications of establishing a new program within an institution requires a review of institutional and departmental goals; a tentative identification of which department, if any, is to "house" the new program; and a determination of the effect of the new program on that department's curriculum, personnel, student enrollments, and budget. The administration must determine how the new program will effect other programs and the implications of such modification on the institution. For example, the new program may add or drop students from current programs; some courses may be combined or cancelled (37); some new programs may attract first-time entrants.

State interest in the effects of new programs on institutions is also evident in the requirement that institutions requesting approval for initiating new programs must identify what service the proposed program will provide to other disciplines (5). Districts are also concerned with the impact of a new program at any of its institutions, both on the "home" institution and upon other district schools. Many districts identify "occupational families" in certain schools, encourage development of new programs at such schools, and discourage similar programs in other district schools or colleges (12). Where a proposed program is similar to another in the district, a written justification for such duplication must be provided.

Program planners should also identify and contact institutions with similar programs already in existence in their service area to ensure that unnecessary duplication does not take place. Such contacts often provide leads regarding the success rate of graduates and can lead to a feasibility study of a cooperative arrangement between the two institutions as an alternative to offering another program.

Area and institutional contacts at this time should also embrace articulation contacts with other institutions feeding both "forward and backward." As an example, community colleges may contact high schools and ROC/ROP agencies to report a proposed program and might also contact four-year colleges to ascertain whether certain programs will be accepted for university credit.

Questions:

1. Does the institution have a method of providing feedback from significant sources in the institution, in the district, and in the local area institutions regarding the effects of the proposed program upon each?
2. Will the program generate students outside the campus or draw from other programs in the school? Will the program replace or incorporate any existing programs?
3. Will the program add to enrollments in other departments?
4. What effects will the program have on budgets (personnel, equipment, facilities, supplies)?
5. Have factors of unnecessary duplication in the service area been reviewed?
6. Has the institution articulated the program with feeder schools and higher institutions?

DETERMINE BEST TIME AND PLACE TO OFFER PROGRAM

5E

Guideline: In making the definitive assessment of curriculum decisions for a new program, the coordinator must determine the best time and place to offer the program.

Procedures: Although decisions relating to when and where to offer new programs are dependent upon many factors (particularly budget), some tentative planning must be made as the curriculum needs are being assessed.

An early determination must be made as to the date when the program will be initiated (5). Another basic decision for colleges and Regional Occupational Centers and adult schools is the time of day to offer the program. Several respondents to this Project's questionnaire strongly recommended that whenever possible, new programs should be initiated on a trial basis in the evening so that their viability could be tested.

Convenience factors loom significantly, too, in time determination. Room utilization, student transportation, the school's daily schedule (15), must all be considered. Attention also must be given in program and course scheduling to ensure that facilities are conveniently located for students who have to travel.

As interest has increased in outreach and non-traditional teaching methodology, there has been commensurate interest throughout the State in weekend use of facilities, an increase in modular and mini-courses, and an increase in utilization of equipment and facilities beyond the traditional boundaries of the campus. In making choices

of sites and times to offer programs, coordinators should consider various sociological factors. Some programs will serve to augment particular student interest if established in certain neighborhoods but may create antagonism if established in others. Program initiators have been urged by some respondents to be particularly sensitive to community reactions when initiating outreach programs in "new" areas.

Based upon enrollment projections, discussed in following section 5F, the program planner should identify anticipated student stations, the number of students to be placed in each, and the ancillary student services that will be needed.

Questions:

1. Does the institution have a systematic method of ascertaining when and where programs can best be offered? Does the institution have a set time of the year for submitting new proposals? Of initiating new programs?
2. Has the time sequence for the program and its courses been identified?
3. Has a needs assessment been considered by which potential students can identify time and place preferences for the program?
4. Have considerations been given to initiating courses in the evening, on "staggered days," or on weekends? Is the institution familiar with the sociological factors identified with initiating a program in a "new" community?
5. Has consideration been given to renting or leasing facilities or equipment? To contracting for services?
6. Have student stations been identified?

PROJECT ENROLLMENTS

5F

Guideline: Before any new proposal is initiated, assurances must be made that student enrollments will be sufficient to make a viable program.

Procedures: "Projecting student enrollment is, perhaps, the most difficult task for program planners" (32:50,51). Doubts about the reliability of projecting enrollment information was repeated by many of the administrators who replied to the Project's questionnaire; yet all stated that these enrollment figures are essential to launching a new program and they make every effort to get as accurate information as possible.

Many districts reported that they rely heavily upon state enrollment projections; high school interest inventories; community needs assessments; their own student assessment studies; information from employers, placement personnel, counselors, and other institutions offering the same program; attendance patterns of related programs; and advisory committees' input.

An early determination of future enrollments is made when the institution decides on the nature of the projected program and its students. As an example, because of their cost alone, nursing programs must limit enrollment. Nursing students also must meet special admission requirements or prerequisites. On the other hand, the school may initiate its program on the basis of the community need and encourage "special" enrollments--aged, minority, or handicapped.

Once the general nature of potential enrollees is determined,

other projections can be initiated. When the program duration has been established, some determination of course length can be made and a breakdown of enrollments, year by year, can begin. In approving proposals, most institutions request a three-year enrollment projection--a few ask for five. Among data usually listed are the numbers of students anticipated in the program for the first, second, and third years; number of entering, continuing, and reentering students; and ratio of full-time and part-time students. Often requested, too, is the potential impact of the program on the F.T.E. Some forms request a description of anticipated students by age, sex, handicapped, etc. Some districts have established criteria for a minimum number of students to begin a program and/or to graduate from it. A statement assuring that an adequate number of students is available to initiate a quality program and sustain it through a three-year period is often appended to district approval forms.

A constant concern of institutions and the state is that new programs should not be set up that "rob" other programs (5). If a program is to drain from others, consideration must be given as to which is more viable. This may lead to reducing or eliminating the programs considered less valuable.

Often a major factor in student enrollments is the effort made to promote the new program. Potential students are frequently unaware of the job descriptions or job opportunities in any given area, and the institution (and community) often have to advertise the benefits of a program and identify any special qualifications or prerequisites required of students prior to enrolling, e.g., age, grade level, transportation, health check (34). Current legislation and student court suits

should make administrators wary of overstating the job opportunities that may come to graduates of any one program.

Several districts also identify a contact person in the institution who will assist in the coordination required for recruitment, orientation, and enrollment of target populations for new programs.

Other enrollment factors considered by Project questionnaire respondents included the need to anticipate registration problems with some special programs (e.g. resident verifications); the need to determine the number of anticipated graduates per year; and an estimate of the expected attrition rates of the program. Programs which were identified as being less likely to succeed were those with low entrance numbers, low numbers of graduates, low placement, and those marked by high attrition or heavy faculty turnover.

Questions:

1. Does the institution use any systematic method to obtain anticipated enrollment data?
2. Are efforts made to assess occupational variables not normally utilized in enrollment projections?
3. In assessing enrollment projections is consideration given to student interest inventories; special societal needs to assist minority, aged and handicapped; similar programs at the institution or in the area; attrition factors; consultation with advisory committees; reports from counselors and placement officers?
4. Has at least a three-year enrollment projection been made?
5. Are distinctions made between entering and continuing students; day and evening; full-time and part-time?

6. Have minimum and maximum numbers of students for the programs been established?
7. Has the effect of this program upon the enrollments of other programs been anticipated? Action taken?
8. Have efforts been made to promote the program?
9. How effective is recruitment likely to be?
10. Have efforts been made to ensure that program publicity does not promise too much?
11. Has an individual been identified who will "bird dog" the program to ensure proper student orientation, registration, and follow-up?

REFINE EVALUATION METHODS

6A

Guideline: Prior to seeking local and state approval, the coordinator of proposed occupational program should examine carefully the policies and procedures to be utilized in program evaluation.

Procedures: Increasing pressures for occupational program evaluations from the community and from legislatures have increased attention to this phase of educational administration. Many of the state's school districts now include an evaluation element in the district approval form, as does the State; as an example the California Community Colleges Form EP-1 asks, "What plans does the college have for periodic evaluation of this program, e.g. COPES, SAM, enrollment data, Transfer Student Success Rate, placement follow-up?" (5:3). Many respondents to this Project's questionnaire also identified various types of evaluations that the individual schools or colleges have identified for their own use. These evaluation "systems" varied from rather simplistic ones calling only for reports on attrition rates to more sophisticated ones identifying numerous facets of the proposed program to be evaluated.

Two aspects of evaluation were often mentioned by Project respondents: the monitoring of the program during its early stages and a review or summative evaluation after the program has operated a year or two. As a general pattern, the monitoring of new programs has been conducted by the institution itself--through the administration and/or the departments concerned--but in some instances, advisory committees assist in this function. Monitoring usually is concerned primarily with insuring that the program is being conducted as planned, and emphasis is placed upon reviewing the quality of the teaching and the adequacy

of the physical aspects of the program.

The monitoring of the learning process incorporates such questions as whether the course objectives have been realized; additional objectives have been added; some objectives have been altered; and whether the teaching methods are adequate. In addition, some districts include an evaluation of outside class assignments as well as an evaluation of the instructor's relationship with students, community members, and employers in the subject field (15).

The monitoring of the physical aspects of new programs was more uniform throughout the State. Questions usually involved the adequacy of the texts and materials used and whether supplies, facilities, and equipment were satisfactory. It is at the summative evaluation phase that the evaluation systems used throughout the State vary considerably from institution to institution.

Two major facets of evaluation methodology emerge from the current practices; one is related to the various areas evaluated by the institutions; the second refers to the methods used in the evaluation.

As with the monitoring phase, major emphasis in the summative evaluation is given to student learning. Included in this evaluation are analysis of the skills acquired, knowledge gained, and attitudinal changes. Other factors closely related to student learning that are reviewed often include studies of job placements, graduate scores on credentialing examinations, and attrition rates.

Other evaluative aspects most commonly mentioned include review of the value and the effectiveness of the teaching methodology, the curriculum itself, advisory committees, counseling, job market data, administrative support, the placement services, efforts to attract

"new students," registration and program promotion methods, the original program goals and objectives, prerequisites used in "screening" students, the physical aspects (materials, facilities, equipment, transportation, and texts), and the place and time of holding the program.

Obviously, a very thorough examination of all of the evaluation items mentioned above cannot and need not be made. The primary decisions of the program initiator are to determine what criteria are to be most significant for program evaluation and then to determine how to best measure these criteria.

The methods used throughout the State for evaluation vary considerably also. One of the more common patterns for internal evaluation is for the department and administration to establish an evaluation team to review recently established programs. Again student learning is the most common ingredient reviewed by these evaluation teams. Thus, efforts are made to ascertain, on the basis of earlier established goals and objectives, what student skills, information, and attitudinal changes resulted from the program. Also included in almost all written evaluation lists are requests to obtain data relating to job placements--full-time, part-time, jobs in the program field, and jobs in allied fields.

Another method of evaluation is to use follow-up questionnaires sent to students and former students by the institution. One of the most complete questionnaires is distributed by mail by the San Bernardino County Regional Occupational Program (34). This survey with telephone follow-up produced an 80 to 90 percent return. It incorporated such questions as: Where are you living now? Your current job title? How does your job relate to your educational training? Did you leave ROP early? Did you learn enough skills to get a job? Was the ROP

program satisfactory? If not, why? Content? Instructor? Time? Length? Materials and equipment? Was guidance satisfactory? Have you visited a high school career center? Useful? Who helped you most in planning your future?

Other mail-type questionnaires include queries to former students to tally those employed in the field, those unemployed, those now in higher education, those satisfied with their training--and those not. A questionnaire form used in Santa Barbara County should prove valuable to those looking for a good student questionnaire model (40). Occupational administrators report that proper sampling and follow-up procedures can lead to high response rates--hence, useful information.

Still other evaluation methods identified by respondents include using advisory committees (47), holding faculty and administrative committee reviews, getting information from feeder schools, counselors, employers and employees, obtaining "hard data" on enrollment figures, attrition rates, and longitudinal studies of the careers of graduates.

Statewide external evaluation systems are better known. On the college level, COPES and SAM programs have been utilized extensively; at the high school and ROC/ROP institutions are the COPES--SAM counterparts: DROVE and TRACE. Also to be taken into consideration are the evaluation aspects associated with licensing and various accreditation committees.

Perhaps the most elaborate tool for evaluation use has been issued recently by Cornell University (46). Although directed toward community college programs, this manual could be useful to any one seeking evaluation techniques. Its primary emphasis is that a rationale for evaluation must first be established and then the critical elements of

the program should be selected for evaluation. Without identifying all of the factors described in the Cornell study, key areas include consideration of some of the following items: nature of students in program, resources costs, internal and external support, employment, general teaching strategies, learning outcomes, and occupational outcomes. The Cornell study emphasizes the establishment of an evaluation plan, the utilization of a specific method for data collection, and an identification of a process by which judgments are to be made.

Questions:

1. Does the institution have a system for evaluating new programs?
2. Does the institution have a method of prioritizing the more significant evaluation information?
3. Does the institution have a system for using information gained by evaluation in its continuing decision making?
4. Does the institution establish both monitoring and summative type evaluations prior to initiating a new program?
5. Are evaluations aimed toward determining the quality of student learning?
6. Are skills, knowledge, and attitudes all included in program evaluation?
7. Are varied instruments and personnel utilized for program evaluation?
8. Are faculty and administrators familiar with the statewide services of SAM, COPES, DROVE, and TRACE?
9. Has consideration been given to evaluating the following areas when program assessment is made: budget adequacy, place and time program established, adequacy of teaching methodology,

value of prerequisites, adequacy of earlier established goals and objectives, course sequence, facilities, equipment, cost effectiveness, value of job market data, value of advisory committees, retention factors, teacher evaluations, administrative support, students' abilities, work-study supervisors' evaluations, long-run graduate job history studies, community reactions to program, institutional reactions, change factors necessary to improve program, need for in-service training, adequacy of ancillary student services, need for remedial courses, adequacy of program promotion, and registration procedures?

DETERMINE BUDGET NEEDS AND RESOURCES

7A

Guideline: Since determination of whether a new program is to be approved depends upon ascertaining both the sources of income and the costs, the coordinator of the proposal must carefully assess budget factors prior to submitting a proposal for acceptance.

Procedures: The critical question to be answered at this point is: Can the institution afford the program? State legislators and others are asking that a more effective method of program cost analysis be made. At the same time, educators recognize that the cost analysis system used in industry often is not practical because of the difficulties in obtaining the "true costs" and because of the variables involved when trying to ascertain the comparable benefits of a program to the student and community (13).

But "accountability" is more and more the word in education and new programs must justify themselves as state boards and others feel the tax dollar squeeze and the demand that programs be reviewed "to determine if the enrollment, number of graduates and general strength are sufficient to justify continuation" (2:12). Although financial factors are a part of almost all aspects of new proposal planning, the determination of budget costs and probable sources of funding must await completion of the overall assessment of most of the other proposal factors.

The major needs and cost items identified by respondents to the Project's questionnaire are normally in two broad categories: those identified with real estate and hardware, and those more closely associated

with the institution's personnel and student personnel needs. Most respondents also recognized the need for projecting costs from three to five years, but they qualified these projections by noting that the variances in enrollments could quite significantly alter the needs and cost figures. Some excellent budget formats were submitted for this Project's review (40;20;38). Usually identified were five-year projections of enrollment, teaching positions, number of classes, length of time, certificated and classified salaries (including fringe benefits), travel expenses, facility, equipment, other instructional expenses, and student transportation. Some identification of revenue sources was made, but generally this aspect was not emphasized.

Questions:

1. Does the institution have a formalized method of obtaining data for analyzing budget needs and income sources when initiating new programs?
2. Are all individuals who are to be involved in significant ways with the program aware of cost and possible revenue factors?
3. Has the coordinator of a proposed program made a thorough study of all cost factors prior to submitting a proposal?
4. Have all sources for obtaining the revenue for the proposed program been considered?
5. Has consideration been given to alternative methods of providing the program-contracting, shared costs, or private industry aid?

DETERMINE FACILITY, EQUIPMENT, AND SUPPLY NEEDS AND COSTS

7B

Guideline: Since one of the most significant cost factors in occupational programs is related to physical aspects, the proposal coordinator should provide a comprehensive budget for these prior to submitting the proposal for approval.

Procedures: As with other aspects of occupational proposals, the State government is concerned with the cost and the planning involved with a new program. The California Community Colleges Form EP-1 asks, "Will this proposed program require any additional facility or equipment outlays?....Have these needs been identified in the facility master plan?" (5:1). Almost every respondent to this Project's questionnaire made some reference to this area of program planning, but no uniform format for identifying specific data is used. The "physical aspects" usually incorporated in budget proposals included a description of the program needs, facility and equipment costs (new, rental, lease, replacements, and maintenance), site acquisition, utility costs, computer costs, transportation, supplies, texts, and other instructional materials (audio visual, tutorial, programmed learning materials, library, learning resource center). In addition, costs were sometimes identified for office space, desks, supplies and equipment for all new personnel hired.

Questions:

1. Does the institution have a comprehensive format, to be completed prior to initiating a new occupational program, which embraces all aspects of the physical needs and costs

of the program?

2. Are individuals supplying the data for this format able to provide accurate figures?
3. Are alternate concepts of utilization thoroughly considered when identifying costs (e.g. rental or lease vis-a-vis purchase)?
4. Do all individuals closely related to the future program participate in cost analysis of the program?
5. Have the needs for the physical aspects of the program been identified in the facility master plan? If so, in what manner?
6. When hiring additional personnel has consideration been given to office space and other costs related to the physical aspects?

DETERMINE PERSONNEL NEEDS AND COSTS

7C

Guideline: Since the cost of providing for personnel needs of any program is a major one in proposal determinations, the program coordinator should assess carefully all of these needs and costs prior to submitting a budget for approval.

Procedures: As with the needs and costs of the physical aspects of a proposal, most institutions have included various personnel factors in their applications for program approval. Generally, these can be separated into two broad categories--those related to the institution's personnel needs and costs and those more closely identified with student personnel services' needs and costs.

In determining institutional personnel needs, institutions have the immediate problem of determining whether qualified teachers are available for the positions that will be established. (One consortium member described the disastrous effects on a program at one institution where not enough attention had been given to this item. It took more than a year after the program was scheduled to begin to obtain a qualified instructor!) Are new faculty to be hired or should regular faculty be retained to teach in the new area? The need and cost factors involved in answers to these questions have to be incorporated in the schools' budget determinations.

In addition to idertifying teachers for the program, other personnel may have to be hired--technicians, clerical staff, custodians, instructional aides, student workers, maintenance workers. The estimated required qualifications, lengths of assignments, fringe benefits, and salaries must be determined.

Other personnel costs associated with new programs should be identified. These would include the need for any administrative cost increases; need for additional consultant or professional expert pay; costs for in-service training; costs for travel; additional costs associated with promoting the program, and registering students; and monitoring, evaluating and accrediting the program. In each of these instances, an estimation of costs should be projected for a five-year period.

A second major category of needs in the personnel area is that identified with students. Here consideration must be given, according to the nature of the program, to a large number of factors. If the program is one encouraging the "new students"--veterans, aged, minority, handicapped--greater attention and costs may be involved in providing counseling, guidance, remedial courses, learning resource centers, financial aids, and tutoring. The implications for the need and cost of hiring additional personnel, as well as the additional "physical aspects" costs previously identified, should be considered.

Questions:

1. Does the institution have a formalized pattern for identifying the various personnel needs and costs when initiating a new occupational program?
2. Has the program been identified in previous master plans of facilities and personnel?
3. Does the institution have access to qualified personnel to operate the program?
4. Will some instructors, or other personnel, need in-service training in order to qualify for participation in the proposed program?

5. Has sufficient consideration been given in the planning of the program to the need for hiring additional student services personnel?
6. Are all personnel to be closely identified with the program kept informed as to the anticipated personnel needs and costs?
7. Has a tentative total cost of the program been made?

DETERMINE SOURCES OF FUNDING

7D

Guideline: Before submitting a budget for approval, the coordinator of the proposed program should determine the various sources that could support it.

Procedures: As pressure increases to reduce costs, the need for seeking additional funding, beyond that provided by the institution's budget, also appears to increase. However, most program budgeting takes into account contributions that can be made by the local institution or district. As an example the California Community Colleges Form EP-1 asks, "What sources of income will be used to cover facility and equipment costs?" (5:1,2). The coordinator has to make some estimate of program costs, (perhaps semester by semester) and estimate what additional F.T.E., if any, will be created as a result of the program--again projecting figures five years. A determination also should be made as to the minimum and maximum number of students the program can properly take.

The coordinator may wish to investigate supplementary or alternate sources of income. The most common of these are, of course, special funding from the State or Federal government, but these are not always popular alternatives. For instance, the St. Helena Unified School District states, "The Board of Trustees shall carefully consider the continuing fiscal obligations that may be imposed on the district at the termination of the federal funding of any project" (33:2).

Regional Occupational Programs are very much involved in making program agreements for affiliations with private and public school

districts. These agreements, obviously, are of major significance in their budget determinations. As other institutions, adult schools, and community colleges, expand with outreach programs and outreach centers, an increase in mutual funding agreements with private industry, private, and public agencies in relation to facilities and equipment will probably also increase.

Questions:

1. Does the institution have a systematic method for ascertaining what local funding is available for new programs?
2. Does the institution have adequate information concerning alternate ways of funding new programs?
3. Does the institution have a formalized budget form that can identify, with proper input, the estimated cost of a new program?
4. Does the institution familiarize its community (citizens, other schools, industry, or agencies) of its desire to enter into agreements with other institutions in educational activities (possibly using shared equipment, facilities, etc.)?

SECURE APPROVALS

8A

Guideline: Although the methods of gaining local, area, and state endorsements vary considerably, each new occupational proposal must be submitted for approval by institutional, district, area, and state authorities.

Procedures: As the proposed program is being created, coordinators should be aware of the various approvals that ultimately must be obtained before a program is put into operation. Normally included in such approvals is an "informal" one, usually necessary within the institution that is, general approval of the staff that such a program is needed.

In addition, most institutions have formal local approval patterns, often including district endorsement, before moving the proposal toward regional and finally State approval. Some programs also come under various licensing and accreditation patterns that should be considered as the program is being organized.

SEEK INSTITUTIONAL, COMMUNITY, AND REGIONAL APPROVAL

8B

Guideline: Prior to seeking state approval for a new occupational program, the coordinator must obtain institutional, community, and regional approval.

Procedures: As previously noted in sections 1 through 8, a program coordinator must continually be aware of the necessity of keeping the community, the institution, and the district apprised of the progress of a proposal so that at the time of seeking formal institutional and district approval, there is assurance of support from these elements (23). The use of a committee composed of community and school personnel is a common method used by many administrators to assure that there is both an awareness of and informal support for the proposed program on the part by both faculty and community.

All segments of public secondary education and the community colleges are required to obtain the written approval of the district's top administrator prior to submitting a proposal to the State for final approval. The California Community Colleges Form states, "Any new program submitted for state approval by community colleges must have the signature of the Superintendent/Chancellor of the college's District" (5:3). In many schools and colleges approval of program proposals is also required at lower echelons. The organizational policies and structures vary so considerably at the various institutions in the State that no simple explanation of institutional and/or district approval system is possible. However, some general approval patterns are common to most institutions.

One of these patterns is the use of institutional forms requesting action by various individuals and committees. In some schools, these are relatively simple forms identifying key factors that a committee or top administrator should check prior to sending the proposal forward for district/trustees approval. In other instances these forms become quite complicated, involving requests for evidence in many of the areas already identified in this manual (e.g. evidence of community support, budgetary compliances, student enrollments, personnel qualifications needed, among others). This manual identifies the criteria which "must be validly supported on the District level and that answers be obtained to the following questions: Employment opportunities? Effect of invention and research on this field of activity? Unreasonably expensive? Cooperation of industry? Is it truly a college course? Will it increase community wealth or welfare? Cost?" (27).

These more involved forms are used in diverse ways. Some institutions require that approval forms be submitted to departments, to curriculum committees, to advisory groups and/or to administrative groups (e.g. president's cabinet) either at the institutional or at the district level. Others require that such forms be used only for one or two groups.

In some instances approval forms will be submitted to institutional approval committees (e.g. curriculum committee) and then sent to the district for additional review by committees representing various institutions and district personnel. Here emphasis is given to questions such as whether or not the institutions are following district goals and objectives and whether or not there is unnecessary duplication of effort.

As with the coordinator's efforts to obtain community and institutional approval, the coordinator should attempt to obtain both informal and formal understandings and agreements with institutions in the region. Informal agreements among institutions within the same service areas have been made historically by administrators from all segments of education, but as the need for occupational education has expanded and concern with the utilization of the tax dollars has grown, more formalized procedures have emerged (35). One of the more significant of these has been the establishment of the Regional Adult and Vocational Education Councils (RAVEC).

These councils, established in October of 1975, when the Governor signed Assembly Bill 1821, are set up to review and make recommendations on vocational and adult continuing education courses and to prevent unnecessary duplication of such courses within a region. These councils' boundaries are the same as the community college districts', and therefore vary considerably as to their constituent membership. All new adult school education courses and programs that are not in the college credit category must be reviewed by RAVE councils. Formats as to the specific items to be included in program approvals have not been adopted Statewide, but council approval forms observed include many of the "critical path" items identified in this Project's Guideline Chart (e.g. "Conduct Research," "Analyze Employment and Labor Supply Data," "Determine Curriculum Needs and Resources"). As the policies and procedures of the numerous RAVE councils become more uniform, so should the functions of the proposal coordinator in relation to obtaining approval from these councils.

In addition to regular occupational areas, the California Post-secondary Education Commission has recommended that certain highly specialized occupations be planned on a regional basis. The Chancellor of the State's Community Colleges, in a letter of July 19, 1976, sent to the RAVE councils a list of programs falling into this specialized basis. The list, which should be available from both the Chancellor's Office or from local RAVE councils, included programs from anaplastology technology through vacuum tube technology. The Chancellor's Office stated that the programs on the list will be carefully scrutinized in the State's program approval process (3).

Questions:

1. Does the institution have ways of gaining "informal" approval from the community and from its staff prior to seeking formal action?
2. Are there formalized patterns for obtaining institutional and district approval of new programs?
3. What reactions do faculty, staff, students have to the proposed program?
4. What groups in community and institution are supportive of the proposal? What negative reactions?
5. Has either the curriculum committee or an advisory committee reacted to the proposal?
6. Are the people, both in the community and at the institution, who are going to be closely identified with the new program committed to it?
7. What is the evidence of their commitment?

8. What informal methods are used by the institution to keep other schools aware of their anticipated new occupational programs? What formal methods?
9. Have institutional and district approvals been obtained prior to seeking RAVEC review?
10. If a community college, has it checked the proposed program against the "highly specialized occupational programs," as identified in 1976 by the State Chancellor's Office?

SEEK LICENSING AND ACCREDITATION APPROVAL

8C

Guideline: Where licensing or accreditation of a program is necessary, the proposal coordinator should complete all steps for approval prior to seeking state acceptance of the proposal.

Procedures: Although the number of occupational programs requiring special accreditation or licensure is not large, coordinators should obtain all pertinent information concerning those programs early in the assessment study, and obtain licensure board approval (5).

Since the accreditation and licensure requirements for each of these programs vary and since many change rapidly, no simple pattern can be described to cover all of the occupational areas. However, as stated in this manual (Box 1J), preliminary information and the various forms needed for each occupational area concerned can be obtained from the American Medical Association and/or the State Board of Licensure.

Questions:

1. Does the institution have access to the names of accrediting and licensure boards?
2. From what professional agency will accreditation be sought?
3. Has licensure board approval been received for this program?

SEEK STATE APPROVAL

8D

Guideline: After completing all definitive assessment studies and having received the approval of the local Board of Education (Trustees), the coordinator should submit the proposed program to the State for final approval.

Procedures: Since the State's approval procedures and forms vary considerably and are currently in a state of flux, this manual will not describe in any detail the specifics for state approval for the major three areas--high schools, ROC/ROPs and community colleges (6).

The form that has been cited most often in this handbook, California Community Colleges Form CCC-EP-1, revised in February of 1976, identifies in some detail the information required by the State for approval of new programs of the community colleges.

Rather similar, but much less detailed, approval forms VE-77A and B covering ROC/ROP course prior approval and applications for ROC/ROP continuing or added section course approval, identify the State requirements for those institutions. These two forms were recommended for use in July of 1976.

With the approval by the State of a new program, the definitive assessment stage is completed and the institution may now move into the implementation phase.

INITIATE AND OPERATE PROGRAM

9A

Guideline: After receiving state approval, the institution may move toward implementing the program.

Procedures: The manner in which a new program is initiated and implemented will vary considerably according to the nature of the program. Particularly significant are the budgetary implications that involve recruitment of students and staff, and the acquisition of facilities and equipment.

Before actual program operation, additional consideration must be given to the nature of the students to be recruited for the program. Major efforts must be made, particularly in the occupational programs, to observe federal and state regulations that provide for the needs of handicapped, women, minority and veteran students.

Early in the implementation stage of a new program, promotion and recruitment planning should begin (15). Notification of the newly approved program should be provided to faculty, students, and the community. Effective promotion of the new occupational opportunity often starts with a flyer that describes the courses and the various job opportunities. Information to feeder schools, business firms, and the community should include job descriptions, current salaries, advancement opportunities, and the education needed to acquire the job.

Techniques of promotion include use of intra-institutional media, use of brochures, conferences, radio and television spot announcements, faculty contacts, advisory committees, direct mailing to prospective students, use of career guidance centers, and work with counselors and

placement directors.

Care must be taken in promoting a new program that false or misleading information not be distributed. In an era of consumer awareness, the institution should not overstate the job opportunity potential.

At this initiation stage, too, additional effort must now be given to staffing. Will the current personnel be able to do the job? Will in-service training be necessary? What recruitment of staff will be needed? What qualifications and credentialling of instructors are involved? Who will serve to administer, coordinate, and evaluate the program? Who will serve as student advisors? Has consideration been given to student placement?

At this time, further planning must take place regarding facilities and equipment needs. Should additional consideration be given to leasing or renting facilities or equipment? Has sufficient budget been allocated to transportation, texts, audio visual materials? What additional library or learning resource budgeting is needed? In light of the time involved in obtaining additional facilities and equipment, is the initiation date for starting the new program realistic?

Another major consideration involved in program initiation is ensuring that sufficient ancillary student services are provided. The following student services should be reviewed to determine their adequacy in relation to the new program: library, learning resource center, counseling, transportation, financial aid, tutoring, remediation, and placement services.

IMPLEMENT EVALUATION PROCEDURES

10A

Guideline: The monitoring and evaluation of a new program should be initiated as the program itself becomes operational.

Procedures: As indicated earlier in this manual (item 1L and 6A), planning for program evaluation should be an inherent part of an occupational proposal, both in the preliminary and in the definitive assessment phases.

The primary purpose of evaluation is to assist the institution in decision making. Should the program continue operating; should it be modified; should it be terminated? How well has the program fulfilled its goals and objectives?

One of the areas of evaluation receiving major attention today is that of student follow-up. The statewide systems "TRACE," produced by Santa Barbara County Schools, and the State Department of Education and "SAM", produced in the Los Angeles Community College District and the Chancellor's Office, are the ones most commonly used. However, many institutions have produced their own instruments (44). An interesting off-shoot of this placement evaluation is used by San Bernardino County ROP in which potential student employers are asked to evaluate student job seekers (34). Grossmont College and Antelope Valley College, among others, have each produced unique materials relating to student follow-up.

Grossmont has a mail form that it sends to all students who have left. Apart from the usual questions relating to the student's current employment situation, questions are posed about the student's reaction to the college and program (19). Antelope Valley College completed an interesting placement study in 1974 that identified critical areas

for evaluation: employment, curriculum, and placement (1).

A monitoring system should be initiated as the new program is established to assess its progress. The criteria to be monitored, however, are often difficult to determine. Does the institution wish to review its promotion of the program, recruitment, enrollment, retention, ancillary services, facility utilization, teacher effectiveness or others? Many institutions report that internal monitoring of newly initiated programs is the more common system. Often the department most concerned or committees of faculty and administrators establish the criteria and then monitor the programs in their early development.

Student follow-up is only one of many methods used in program evaluation. External evaluation is often conducted by the Community College Occupational Programs Evaluation System (COPES) and by its counterpart at the high schools, DROVE (District Review of Vocational Education).

Some institutions utilize advisory committees for external evaluations, but as more intensive and more sophisticated evaluation systems are being adopted, this practice is apparently less common today than in the past. On the basis of the information received from the monitoring and evaluation processes, the institution should be prepared to continue, modify, or terminate the program.

Questions:

1. Has a prioritization of evaluation factors been established for the program?
2. Has a system for gathering and utilizing the various monitoring and evaluation data been established and implemented?

3. Does the institution utilize either the SAM or TRACE student follow-up systems? Or have one of its own?
4. Does the institution use either the COPES or DROVE system for external evaluation?

MODIFY OR TERMINATE PROGRAM TO MEET EVALUATION RECOMMENDATIONS

10B

Guideline: Based upon information gathered from program evaluations, institutions should modify or terminate programs when such actions appear to be justified.

Procedures: Only a very limited number of institutions in the State have written procedures describing their practices in modifying occupational programs. Part of the reason for this is, undoubtedly, the lack of a precise definition as to what program modification is. For example, modification could incorporate as minor an item as a unit credit change, or an incorporation of work experience, or it could be significant enough to be the basis for starting a new program.

For the purposes of this manual, curriculum modification will be defined as "a major departure from what is currently identified in the program description but one that does not involve such a drastic departure that a new program should be initiated"--a description that is still not precise but hopefully eliminates consideration of the myriad minor modifications involved in all program development.

The determination as to whether a program should be modified or not is made in a variety of ways throughout the State. Both informal and formal program evaluations are used, as stated in the prior chapter. Often the instructor initiates a request for modification when he or she feels the program is not meeting its stated objectives, or the program no longer meets the training requirements for the job for which it was designed. Often a department, outside consultants, or advisory committees will recommend modifying courses or programs. Some

modifications follow the analysis of material received as a result of follow-up studies of graduates and sometimes, changes result from job market analysis, technological shifts, or changes in student attitudes.

Typical of many districts is the format for curriculum modification presentations developed for the Board of Trustees of the St. Helena Unified School District (33). To initiate modification, the coordinator is to identify the problem to be corrected; to list the potential problems involved in modification; to identify staffing needs; and to describe the anticipated evaluation process.

As with modification, few districts have written procedures for terminating programs, although some--particularly the ROC/ROP districts--do identify procedures for terminating individual courses. One college reported that it "has never terminated an occupational program except during World War II." During the era of expanding enrollments, such a policy was possible; but with greater demands for accountability and possibly decreasing enrollments, institutions are undoubtedly going to review all programs more carefully and eliminate some marginal ones.

Programs are eliminated for a variety of reasons. The most common ones reported were those where the occupation has become obsolete, where there is low student participation, where costs exceed the limits of the local budget, where future job opportunities appear to be extremely limited, or upon the recommendation of an occupational advisory committee.

Part of the reluctance of some institutions to abandon a curriculum may relate to the desire to revive it at a later date and to avoid the time and cost factors involved in instituting a new program. It is easier to put the program "on ice" than eliminate it.

A major concern raised by some institutions was that program elimination also raised the threat of faculty termination and that in a state with strong teacher protection laws, the elimination of programs raises some very difficult personnel problems. In an effort to avoid hiring tenured teachers for programs that might not be successful, some institutions are utilizing fewer full-time instructors or are placing new programs on a temporary basis until there is evidence that the program will be supported.

Terminating programs appears to be a concern of local Boards of Education and Trustees. Numerous districts reported that terminations must be approved by the local school board. However some districts reported that they had no formalized procedure for terminating a program other than that required by the State Course Approval Staff (e.g. Regional Occupational Center).

In the last analysis, it appears that modification and termination of programs must rely heavily upon establishing evaluation priorities and systems, utilizing valid evaluation tools, analyzing carefully the information gathered, and taking the appropriate action to retain, to modify, or to terminate the program.

Questions:

1. Does the institution have a definition for program modification?
2. Does the institution have a policy for terminating programs?
3. Are program evaluations followed by specific actions: agreement to retain, modify, or terminate?
4. Does the institution have a formalized procedure for modifying or terminating programs?

BIBLIOGRAPHY

1. Antelope Valley College. Technical-Vocational Follow Up Study Phase I. Information Report No. 4. Lancaster, Calif., 1974.

2. Arkansas State Department of Higher Education. Criteria and Procedures for Preparing Proposals for New Programs. Little Rock, Ark., 1975.

3. Brossman, S.W. Personal Communication. California Community Colleges, Office of the Chancellor, July 19, 1976.

4. Butte Community College District. Program Proposal. Oroville, Calif., [n.d.].

5. California Community Colleges. Application for Approval of New Education Program. Sacramento, Calif., application form, 1976.

6. California Community Colleges. Master Plan and Inventory of Programs for the California Community Colleges. Revised Spring 1976. Sacramento, Calif.: Office of the Chancellor, 1976.

7. California State Department. California Manpower 1975-1980. Sacramento, Calif.. Employment Development Department, 1975.

8. Central City Occupational Center. Suggested Accompanying Letter to School Survey Form. Los Angeles, Calif.: Los Angeles City Unified Schools, [n.d.].

9. Chabot College. Course Proposal. Hayward, Calif., 1976.

10. Chaffey Joint Union High School District. Instructions for Curriculum Modification. Ontario, Calif., [n.d.].

11. College of Siskiyous. Guidelines for Developing New Educational Programs. Weed, Calif., 1972.

12. Cosumnes River College. Curriculum Procedures and Policies.

Sacramento, Calif., 1973.

13. Dobrovolny, J.S., and Stark, R.L. An Evaluation of the Program Approval Process in Illinois Community Colleges. Champaign, Ill.: Midwest Educational Research Evaluation and Training Center, 1975.

14. East Los Angeles College. Instructions for Completing Curriculum Development Forms. Los Angeles, Calif., [n.d.].

15. Eastern Kern Regional Occupational Program. Kern County Regional Occupational Program, New Program Proposal Form. California City, Calif., [n.d.].

16. Glendale Unified School District. Design for Curriculum Development. Glendale, Calif., [n.d.].

17. Gold, B.K., and Morris, W. Student Accountability Model (SAM): Operations Manual. Sacramento: California Community Colleges, Office of the Chancellor, 1977.

18. Grossmont College. Evaluation of Biomedical Technology Program. El Cajon, Calif., 1975.

19. Grossmont College. Follow Up Form. El Cajon, Calif., [n.d.].

20. Huntington Beach Union High School District. Vocational Course Proposal. Huntington Beach, Calif., [n.d.].

21. Kern Regional Occupational Center. Procedures for Developing New Programs. Bakersfield, Calif., [n.d.].

22. La Puente Valley School. Operations Chart for Planning and Approving Courses and Application for ROC/P Course Approval. La Puente, Calif., [n.d.].

23. Long Beach Unified School District. Application for Course Approval. Long Beach, Calif., 1975.

24. Los Angeles Harbor College. Los Angeles Harbor College Manpower

Survey, 1976-1980. Wilmington, Calif., [1975].

25. Los Angeles Unified School District. Instructions for Completing Applications for ROC/ROP Course Approvals. Los Angeles, Calif., [n.d.].

26. Los Angeles Unified School District. Labor Market Supply Survey Procedure. Los Angeles, Calif., [n.d.].

27. Los Rios Community College District. New Programs to be Developed in the Los Rios Community College District. Sacramento, Calif., 1970.

28. Los Rios Community College District. Vocational Programs of the Los Rios Community College District. Sacramento, Calif., 1975.

29. Napa County Superintendent of Schools. Advisory Committees. Napa, Calif., [n.d.].

30. New Jersey Department of Higher Education. Manual for the Preparation of New Degree Program Documents by the New Jersey Community Colleges. Trenton, N.J., 1976.

31. New York State Education Department. Handbook for Members of Consultant Committees for Occupations. Albany, N.Y.: Office of Occupational and Continuing Education, [n.d.].

32. Posner, G., and Others. Program Planning in Two-Year Colleges: A Handbook. Ithaca: State University of New York, and Cornell Institute for Research and Development in Occupational Education, 1975.

33. St. Helena Unified School District. Curriculum Modification and Development Process and Organization. St. Helena, Calif., 1975.

34. San Bernardino County Schools. Regional Occupational Program. San Bernardino, Calif.: Regional Occupational Programs, 1975.

35. San Diego County Regional Occupational Program. Proposal for a New Course. San Diego, Calif., 1975.

36. San Francisco City College. Steps in Developing a New Occupational

Curriculum. San Francisco, Calif., [n.d.].

37. San Mateo College. Procedures for Development and Approval of New Courses, Programs and Educational Services. San Mateo, Calif., 1976.

38. San Mateo Community College District. Administrative Procedures. San Mateo, Calif., [n.d.].

39. San Ramon Valley Unified School District. Data Needed for Vocational Program Approval. Danville, Calif., [n.d.].

40. Santa Barbara County Schools. Regional Occupational Program Course Evaluation Procedure. Santa Barbara, Calif.: Regional Occupational Programs, [n.d.].

41. Simi Valley Unified School District. Planning Process Manual for Vocational Education Utilizing the Manpower Management Information System. Simi, Calif., 1975.

42. South Carolina Technical Education System. Guidelines for Degree and Diploma Proposals Rationale Procedures Format. Columbia, S.C.: Division of Educational Services, 1975.

43. Southeast Los Angeles County Regional Occupational Program. Community Articulation of Career Education Business and Office Cluster. Norwalk, Calif., 1975.

44. Southeast Los Angeles County Regional Occupational Program. Program Evaluation. Norwalk, Calif., [n.d.].

45. Tulare Joint High School District. Procedures for Curriculum Change Adoptions. Tulare, Calif., [n.d.].

46. Winter, G., and Others. Reality-Based Evaluation for Two-Year College Occupational Programs. Pilot Edition. Ithaca: State University of New York, and Cornell Institute for Research and Development in Occupational Education, 1975.

47. Wisconsin System of Vocational, Technical and Adult Education.

Procedures Manual VTAE Career Programs. Madison, Wis., [n.d.].

48. Yuba College. Normal Procedures for Course Development and Approval. Marysville, Calif., 1976.

APPENDIX A

SANTA BARBARA COUNTY SCHOOLS

Office of the Superintendent

4400 Cathedral Oaks Rd. (P.O. Box 6307), Santa Barbara, Calif. 93111 / (805) 964-4711

REGIONAL OCCUPATIONAL PROGRAM

GUIDELINES FOR PREPARATION AND SUBMISSION

OF

APPLICATION FOR COURSE APPROVAL

Requests for Regional Occupational Program courses or services need to conform with the Education Code, Administrative Code, State guidelines, the Vocational Education Plan, and the guidelines and policies of the Santa Barbara County Schools Regional Occupational Program. The ROP/State application form is meant to serve as an aid in the development and evaluation of ROP course applications.

The following steps should be followed to expedite approval of an ROP course application:

1. School district personnel, ROP staff members, or other individuals, public and private agencies, identify a need for occupational training or service and gather information and details in order to complete the application. The ROP staff is available to assist in the development of the application. An occupational advisory committee MUST be involved in the development of an ROP course. A written copy of each proposal will be sent to each member of the Planning Committee for input from the departments involved.

2. If a local school district or agency will be conducting the course or providing the service, approval of the application by the district or agency must be obtained prior to submitting the application to the ROP Planning Committee.

3. The proposal is submitted to the ROP office. The ROP staff reviews the proposal to ensure that it meets the State and local guidelines, rules, and regulations, then develops a tentative budget. After analysis by the ROP staff, the application is forwarded to the Planning Committee for action.

4. The ROP Planning Committee reviews the proposal to ensure that it does not supplant, conflict with, or unnecessarily duplicate existing courses or services. After reviewing the application, the ROP Planning Committee approves or disapproves the application. If disapproved, the application may be recycled to the originator for modification, further details, etc. If the application is approved, it is forwarded to the Coordinating Council with recommendations.

5. The ROP Coordinating Council reviews the application and takes one of the following actions:

   a. disapproves the application

   b. approves the application and funding, and recommends it to the County Superintendent of Schools

   c. defers action pending additional information, clarification, etc., and may refer application back to any one of the preceding steps

6. When the Coordinating Council approves the application, it is submitted to the County Superintendent for review. If the County Superintendent disapproves any part of the recommended program, the application is returned to the Coordinating Council with the reasons for disapproval stated.

   Upon the Superintendent's approval, the application is forwarded to the County Board of Education for action.

7. The program is presented to the County Board of Education for action. If the County Board of Education disapproves the program, the reason for such action is communicated to the ROP Coordinating Council. When the County Board of Education approves the program and budget, it is forwarded to the State Department of Education for its approvals.

8. Contracts between the Santa Barbara County Schools Regional Occupational Program and school districts or agencies operating ROP courses or services are let upon approval of the County Superintendent of Schools.

9. Upon receipt of all required approvals by State Department of Education personnel, the instructor will be employed, promotional materials published, equipment and materials obtained, and the program implemented.

UNIVERSITY OF CALIF.
LOS ANGELES

OCT 21 1977

CLEARINGHOUSE FOR
JUNIOR COLLEGES

ROP 10/75
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